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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*On the Progress of the Asiatic Cholera during the Years* 1844–45–46–47–48. *With Remarks by* S. H. DICKSON, M. D., Professor of the Theory and Practice of Medicine in the University of New-York. (With a Map.)

WE have received from a friend at Constantinople, an interesting series of papers, published in the Echo de l'Orient, by Dr. Verrollot, Physician to the French Embassy near the Sublime Porte, accompanied by a map, curious for its minute details, geographical and chronological. They contain the only history extant, so far as we know, of the march and progress of the epidemic cholera which now ravages Asia, has invaded Europe, and threatens for a second time to devastate the entire surface of the globe.

The Delta of the Ganges, it is well known, constitutes the original focus of this terrible pestilence. It has existed there without interval certainly for the last thirty years, within which period it has twice sent forth its pestiferous waves on every side, from that centre. From the end of the year 1837, we have heard little or nothing of it within the domains of civilization—it seemed to confine itself to its ancient domicile on the plains of Hindostan.

In 1844, it is known to have made an encroachment upon Afghanistan, where its ravages were considerable. In May, 1845, it was at Kandanar, carrying off 300 victims a-day; in June, at Kaboul; in July, at Herat. "It is said that some pilgrims, returning home, contracted the disease in the last named city, and introduced it into Samarkhand in September." From Samarkhand it passed, in November, to Bokhara, where it wintered, penetrating, in February, 1846, to Meched. From Meched it traversed Khorassan from east to west, following the great roads, reaching Asterabad in May, 1846, and Teheran in June, (1846,) carrying off 7000 persons in 70 days—one-twentieth of the population. It broke out in Bagdad early in September, 1846; its victims in three weeks amounting to 4,300 souls—nearly one-seventh of the population.

Towards the end of November, (1846,) it showed itself in Medina and Mecca. At Mecca its victims amounted to 15,000, in a transient population of 100,000. "Is it true," asks Dr. Verrollot, an impartial historian, but evidently unwilling to admit the contagiousness of this disease, "is it true, as has been supposed, that cholera was imported into Mecca by the caravan from Bagdad?" "It is curious that in 1846, as in 1831, cholera appeared in these places at the precise moment when the Hadgis flocked thither from all sides."

At the same time the pestilence spread in two other directions from Teheran, following the western coast of the Caspian sea, and penetrating into the ancient Media, the modern province of Adhubidjan. We trace it to Kasbin, Tebriz, Ourmiah. In November, 1846, it invaded the Russian provinces of Talieh and Chirwan. Just as in 1823, it passed on by Lenkoran, Saliani, and Bakou, reaching, on one hand, Chamakhi, at the southern extremity of Caucasus, and on the other, the defile of Derbend, at the 42d degree of latitude.

Here it stopped at the end of that year, (1846,) and took up, so to speak, its winter quarters upon the frontiers of Europe. During two months nothing was heard of it; there was, indeed, a moment of hope that it had disappeared entirely. But this illusion did not last. At the end of March, 1847, this modern hydra started from its short sleep, and raised, more terrible than ever, its thousand hungry heads. It reäppeared in the lower valleys of Daghestan and Chirwan, in the midst of the marshes which fringe on this shore the Caspian sea. This region, fruitful in intermittent fevers of grave character, seems equally propitious to the production of cholera-morbus. The fatal coincidence which exists in many places between the epidemic we are describing and intermittent fever, has been often remarked. The analogy of these maladies is even so striking that many physicians have gone so far as to consider them fundamentally identical, and determined by the same morbific principle. Be this as it may, it was here that cholera raged with its most cruel intensity, and from hence it resumed its westward march, a moment interrupted. Its course was twofold; on one side invading Georgia and Turkey, on the other penetrating the mountains, where it met the armies of Russia, d inflicted upon them a loss greater than that of three years' war. In May, 1847, it arrived at Kizliar, at the embouchure of the Terek. not only raging in the city, but attacking the stanitzas of Kossacks in its environs. In June and July, nine of these military villages were invaded, and many squadrons, seeing its approach, shunned it by abandoning their stations and retiring into the Steppe, where it did not follow them. From the delta formed by the numerous mouths of the Terek, the cholera radiated towards Astrachan on the north, to the northwest, in the Steppe of Kouma, where it reached four "Oulouss" of Kalmucks, who had not yet abandoned their summer encampment, and westwardly to Stariopol, chief town of the province of Caucasus. On the same day, July 4th, 1847, the epidemic broke out at each of these extreme points, traversing in 41 days the different distances of 35, 68, and 96 leagues.

As soon as it showed itself among the Kalmucks, they struck their tents and moved away. But it seemed that the new places to which they retired were equally favorable to the development of cholera, for they

were not as fortunate as the Kossacks of whom we spoke above. The epidemic continued, and spread itself among other "Oulouss," without exhibiting, however, any great degree of rigor; for in 32 days no more than 181 individuals were seized, of whom 90 succumbed.

Dr. V. considers these Kalmucks as "the type of physical man, of man in good health," subjects therefore in whom cholera would show itself, "with all its proper characteristics," and concludes that in the most natural and favorable conditions, the law of average mortality would be for cholera, 50 per cent.

The quarantine establishment of Astrachan, is situated at 18 leagues distance from it to the south, on the small island Biroutchaia-Kossa. It appeared there on the 3d July, we know not how introduced; on the next day it passed to the city. Its three earliest victims, died in less than 24 hours. At first its progress was slow, but from the 13th July, 1847, it extended with great rapidity and malignity, the weather being very hot and the air exceedingly moist from the falling of the waters of the Volga. In less than three months the deaths reached 1413, in a population of about 50,000, being at a ratio of 57.55 per cent. of the sick.

Of the various classes inhabiting Astrachan, the Russians suffered most. The Mussulmans are more cleanly, dress more warmly even in summer, and live soberly and temperately.

From this point, the pestilence spread itself in every direction over the neighboring country, and along the banks of the Volga. But there was one remarkable exception, upon which Dr. V. dwells with a reasonable enthusiasm, and which deserves, indeed very special notice. There is a small Moravian colony, called Sarepta situated in a bend of the river, in the midst of the Kalmuck hordes, eulogized by all travellers for its remarkable industry and minute cleanliness, and all other laudable and fortunate features of character. The cholera itself seemed to respect this sacred spot; passing by, both in 1830 and in 1847, without inflicting upon it the least evil.*

In the government of Astrachan, cholera reigned 13 weeks. Official reports state the number of those attacked at 7,132, the deaths being 3,772, a fraction more than half. At Saratov, a town of 45,000 souls, it appeared on the 11th of August, lasted 32 days, carrying off 2,240 victims, the deaths being to the number attacked in the appalling proportion of 76 per cent., more than three fourths! One is surprised after this statement, to meet with the remark, that "the observations made by the physicians of Saratov, tend to prove that the present epidemic is less malignant than the former one." This remark is repeated in reference to the city of Kazan, where we find the cholera on the 5th of September, at the distance of 110 leagues in a straight line, this great distance having been traversed as it were "at a bound," in 19 days. Here, however, it seems to be better founded, the deaths being about the average proportion 49 per cent., amounting to 1208 out of 2467 sick, in a population of 58,000.

At the same time when it spread itself throughout the government of Kasan, we find the epidemic extending towards Orenbourg, eastwardly.

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* A writer quoted by Copland, (Dict. No. XI., p. 115,) ascribes the immunity of Sarepta to its rigid quarantine.

It penetrated into the government of Nijni Novogorod on the 8th of September. Here it prevailed with comparative mildness. On the other hand in the government of Voroneje, on the south and west, it offered a character of malignity much more pronounced. In the province of Caucasus, it is observed that the disease showed itself more intense in the valleys and in defiles inaccessible to the winds, where the heat is great and that it attacked the Russian troops and residents in preference to the Mussulmans. The mountaineers were less exposed. But generally, the epidemic had here a strongly malignant character, and affected the whole population in various degrees. The Tscherkess, on the left bank of the river Kouban, suffered particularly. It is not known whether the epidemic penetrated farther into the valleys of Caucasus.

At Taganrog on the sea of Azof, it appeared on the 21st July; in a population of about 16,000, it attacked, during 56 days of prevalence, 501 persons, of whom 215 died; a proportion of near 43 per cent. Hence it made a traverse of 23 leagues, in 22 days, to Manoupol, and from Manoupol to Bediansk, 13 leagues in 41 days. To Perekop, it made "a bound" of 65 leagues; from that point to Kherson, a town at the mouth of the Dneiper, it took 49 days to make 21 leagues. Southwardly in the Crimea, it moved much more rapidly, projecting its fatal rays in the space of a single month to a distance of nearly 200 leagues.

It seems that the cholera appeared about the middle of July, in the government of Voroneje, at Bytchkovskaia, near the Don, upon the Kossack frontier. This place is 73 leagues in a straight line, 77 by the post road, and 125 by the river, from Novo Tcherkask, the capital of the province of the Don, where the epidemic showed itself one day previous; if it arrived from thence, it must have cleared that great distance in a single day. But it is more probable that it was received direct from Staro Tcherkask, a stanitza of the Kossacks, the probable source whence it reached Rostov and Novo Tcherkask, equally distant, giving 10 days for its march thence. Seeing it thus clear "at a bound," this great interval, one would expect it to be developed rapidly in the environs of Bytchkovskaia. Precisely the contrary happened. It was not until a month after that it appeared at Bogoutchar, a town situated on the other side of the river, only four leagues distant, and it consumed 40 days more in reaching Pavlosk, the chief place of the neighboring district, 17 leagues away, traversed both by the river and the great road.

At Voroneje, it broke out on the 22d August. This is a city of 25,000 souls, situated on a branch of the Don and often ravaged by intermittent fevers; the climate is mild and the soil fertile. The winter coming on in December, lasts but four months. Here the cholera spread with uncommon rapidity, the proportion of those attacked to the whole population being very considerable. But the proportion of deaths among the sick was less than two-fifths, or about 40 per cent.

In the government of Kharkov the epidemic appeared on the 20th July, spreading rapidly to the northward and thus penetrating into the government of Koursk. On the 9th August it showed itself in several villages of the district of Obiane; on the 26th August at Demetriev, 22 leagues northwest; the 8th September at Timè, 15 leagues west; and on the 9th at Fatije, 13 leagues northwest; lastly, in the month of October, at Chtchigri, chief town of the district of that name.

Thus the cholera occupied six weeks in overrunning the fifteen districts

of the government of Koursk, comprising a superfices of 2,185 square leagues and about two millions of inhabitants. It found here conditions more favorable than elsewhere to its existence, and continued to rage with obstinacy. On the 31st December it still reigned in seven districts. From the day of its entrance until that period it had attacked 16,554 individuals, of whom it had carried off 6,409—about two-fifths.

Here, we regret to say, terminates our file of papers containing the precise history of cholera, from the pen of Dr. Verrollot, and in tracing its farther march we must resort to other sources of information. Meanwhile let us review the statements for which we are indebted to him, and add to what has been said of its origin and progress such facts as have been recorded tending to point out its causes and mode of propagation, and ascertain what has been done by our profession towards its prevention and cure.

First, let us observe that whatever may have been the original source of cholera in the central region, whence it has twice within the present century extended itself by a sort of radiation, its mode of extension has ever been *progressive*. It has been traced by the assiduous diligence of observers like Dr. Verrollot from point to point, seemingly incapable of finding a resting place. What centrifugal force thus discharges or projects it on every side? The impression is universal, and is conveyed in universal language. "The cholera," says every one, "is coming!" What is it that comes—the disease, or its cause? The disease alone, or a case of it, or a hundred cases, would excite no alarm in coming, if it were not for the universal belief that with the disease, with a case or cases of cholera, comes also the efficient cause of other cases, the cause of its epidemic prevalence. It would seem then to be universally agreed on that the cause is not local or indigenous; "it comes," it acts, it goes away, or subsides or becomes inert. How does it come? What is its mode of progress? Is it wafted by winds? Is it *stayed by any obstacles?*

When existing at any one point, has it ever showed itself at any remote point by a clearly proved spontaneity? It will hardly be asserted that it has ever, out of Hindostan, originated in any locality unless that place was connected by social or other intercourse with some other at which it was previously known to exist, and the uniform coincidence of such intercourse being established, we next inquire whether such intercourse is necessary to its spread, and whether it be the means of its extension. Those have to sustain, in view of this constant coincidence, a heavy burden of proof who set out to show, that nevertheless it is not transportable nor ever transported; not communicable, nor ever communicated; not contagious, nor ever conveyed by infection; that it is always of local origin, indigenous, and of spontaneous production wherever it appears; that all soils, all climates, all temperatures, all states of society, all localities, are capable of giving rise to it.

Whatever may be the cause of cholera, whether a vegetable fungus, a nucleated cell, an insect or animalcule, or an emanation aerial, gaseous or chemical, there must be a *materies morbi*. It travels, doubtless; but by what modes? It is either originally inexhaustible in amount and force, a notion hardly tenable when we look over the immense extent of its prevalence, or it is reinforced by additions to its mass from time to

time and in various places. How is it thus reinforced? Whence does it derive these additions? Soil, climate, subjects, locality, are all changed, but nevertheless *the same agent* is generated and regenerated; the *same*, for the effects of its causative action are every where identical; precisely the same amidst the snows of Russia as "under the burning line." We believe that this train of thought leads philosophically and by logical necessity, to the doctrine of infection—of contagious propagation. The same causes produce the same effects. From the choleric patient is derived the supply of that agent which affected him with the disease. *He* presents the only similar contingency, in his personal condition, which can be traced when we endeavor to connect effect with cause, and ask why cholera, which in January was in Moscow, is in September at Hamburg; which, thirty years ago ravaged Hindostan, and now threatens the crowded cities of England.

We are not very anxious to indicate the specific links of the chain of events which bind together the various and successive invasions of countries, districts, and cities. We care very little whether the particular individual can be pointed out to whom the fatal importation is owing. We listen coldly to the special pleading which ingeniously disproves any alleged mode of communication, and seeks to discover an insulated case or cases any where that cannot be brought in contact with any previous case. We attended, during the last winter, 40 cases of *smallpox*, not one of which could be connected either by contact or conscious near approach with any other: nay, Haygarth says, "it never can be traced as from a centre." We are satisfied with the overwhelming force of the general views above set forth, and regard the question of the communicability of cholera, as being quite as well settled as any other point in pathology.

The non-contagionist shrinks from any speculation of a definite character concerning the cause of this terrible pestilence. He indulges in vague declamation as to the terrible inquination of the air we breathe by the foul vapors of the marsh, and the dense emanations of the river shore, and the confined atmosphere of the lanes, alleys and courts, of crowded cities. But all this does not touch the true point in dispute. The marsh, the valley, the hovel, and the damp cellar, are familiar sources of evil on which all eyes are fixed. But the same source which in 1846 eliminated intermittent or typhus, yields in 1847 a *new product*. Whence the difference?

Dr. Verrollot quotes with approbation the views of those who regard cholera as one of the products of malaria, an analogue, so to speak, of the malignant and congestive fevers which belong to hot and moist climates. But however frequently and severely it may prevail in certain situations where these fevers arise, it never shows itself spontaneously in some of *their* best known seats; nay, even when its specific cause developed itself upon our American continent, many of the localities annually ravaged by the worst malarious fevers entirely escaped; while it extended over the healthier portions of the northern and middle states, and in cities, where, according to Bancroft and Johnson, density of population gives immunity from the diseases brought on by the paludal poison.

Dr. V. tells us that "the epidemic was more intense in the towns than in the country." He informs us that at Saratov "towards the end of

the epidemic, certain other maladies, such as *intermittent fevers*, reäppeared, of which no vestiges could be perceived during the great intensity of the scourge. It was always observed however that typhoid fevers were not subject to its influence; they showed themselves frequently without any choleric symptom, while, on the other hand, the cholera often transformed itself into a typhoid fever, or complicated itself with that malady." These facts agree with observations made in our own country which go to show affinity on the part of cholera, rather with the typhoid affections of dense and wretched populations, than with the wide-spreading malaria of our southern and western country. Yet Dr. Verrollot, with his laudable exactness, soon separates it from typhoid diseases by showing that it is always, in direct contrast with them, somewhat repressed by the cold of winter, although unhappily not extinguished. Its extension rarely takes place, (if ever,) in the reign of frost; and among other facts which go to show that "the cold has really an influence upon the energy of the epidemic" he states that "it does not cross the ridges of high mountains."

As a faithful historian, though opposed to the doctrine of its contagiousness he recounts several instances apparently favorable to that mode of accounting for its progress. Its reported transportation by pilgrims into Samarkhand, Medina, and Mecca, has been already quoted. On the route to Tsaitsin, a Kalmuck village, Kalmytsky Bazar was attacked by cholera which spread itself in the environs of Astrakhan, "leaping from one point to another without regularity. The Lama was the first victim; an assistant of the priest next suffered, and afterwards several others in the service of the same person." The Kalmucks terrified, abandoned the sick and the dead, and fled into the Steppe, but in spite of their retreat they could not shun the malady to which they fell victims in the remote "Oulousses."

Again, "Kertch is a little town of less than 6000 souls, by its maritime position, the key of the canal of Jervi Kalch, the ancient Cimmerian Bosphorus. On the 9th of August, 1847, a case of cholera occurred on board a vessel from Taganrog where the epidemic prevailed." After this he tells us the pestilence lasted 56 days and carried off 225 victims, and goes on to remark: "The contagionists will see in this fact a point in support of their theory," but he suggests, the pestilential effluvia may have been blown thither by the wind from some other quarter.

"At Taganrog the first case of cholera occurred on the 15th of July, in a citizen who arrived the day before in good health, by the steamboat from Rostov where cholera prevailed. He died in nine hours. It was only six days *after this accident* that the epidemic declared itself in the city where it reigned eight weeks.

We shall quote but one more instance of his sort. "On the 30th July, a peasant, Andre Litvinov, who had also just returned from Rostov, was taken to the hospital at Kharkov. He had felt the first symptoms of the malady the day before, on his way, at Tchougoniev nine leagues distant. It is not irrelevant to observe that the epidemic did not yet exist in this place and did not break out there until three or four days afterward. The unfortunate peasant died the next day at the hospital. Golatchev, the *infirmier*, who had bled him, was taken on the 2d August, *after having eaten cucumbers for his supper.* The fol-

lowing day the mother of Golatchev, who nursed her son, and another *infirmier* named Ivanov, who had also attended Litvinov fell sick; and all the three died on the 4th of August. From that time the malady commenced to propagate itself among the inhabitants; but it was not really until the 19th that it put on the true character of an epidemic."

The most exacting contagionist can demand nothing more clear and pointed than the above statements. Thousands of such have been collected during the two histories of cholera, which have been so abundantly written. But there is one point to which sufficient attention has not been directed. It is the interval usually, if not uniformly noted, between the occurrence of the first case in any newly-invaded locality, and the explosion of the disease as an epidemic. Why this interval? The vague and undefined negations of the non-contagionists afford not even a conjectural explanation. When cholera assails New-York, the Five Points will not be more filthy than they are to-day. When they produce one case they will be in fit condition to give existence to a thousand. But the contagionist will offer a reasonable explanation of the facts. A case occurs; from this emanates a certain amount of the infectious principle; then another and another, until the atmosphere, filled with contagion, infects all who are predisposed, or who are not guarded by some happy inaptitude to receive the impression.

We must not omit to set down here such information as we have been able to gather, concerning the treatment of the pestilence at the various places where it has been encountered by the profession.

Notice has been already taken of the idea which suggested itself early to certain physicians, and which seems to have met with some favor in the eyes of Dr. Verrollot, that cholera was identical in source and nature with malarial diseases. He alludes to Dr. Ferri, one of his predecessors, "a distinguished physician of the faculty of Paris," as having published, in 1832, a pamphlet upon cholera, which he named "a pernicious algid fever,"—"fievre pernicieuse algide." His "ingenious theory" we leave to be inferred by the reader; his practice was as follows: "After an abundant bleeding as a derivative means, he administered as soon as possible, the sulphate of quinine in large doses. This medication, he says, is infallible when timely applied; it succeeded even in desperate cases; out of 162 choleric patients thus treated, 134 were cured. His observations were made at Constantinople, in July, August, and September, 1831.

Saratov was the locality most remarkable for the large proportion of deaths from cholera, which amounted on the whole to 76 and a fraction per cent., (more than three-fourths of the sick,) 2,240 in 32 days of August and September! He may well say that "the treatment was little satisfactory. No regular or experimental method was followed. From venesection to the Elixir of Voroneje the results were almost identical, that is, negative. They even affirm that the boasted elixir was more injurious than useful. There is but one medicine from which the physicians of Saratov seemed to have derived benefit, and that was the root of ipecac., administered as an emetic in the commencement of the attack. This prescription often caused the disease to disappear as by enchantment."

At Kazan the disease prevailed 68 days, in September, October, and November; tempered, perhaps, by the lower heat of the advancing sea-

son, and carrying off 1208 persons; a proportion of mortality of 49 per cent. "The treatment followed by the physicians of that city, consisted principally in the methodical and opportune employment of calomel, ipecacuanha, venesection, and external stimulation; calomel chiefly was employed to combat the diarrhœa which ordinarily preceded the explosion of cholera. It was given in doses of one-fourth gr. to two grs., frequently repeated until the dejections became bilious. When there was thoracic "oppression, uneasiness at the epigastrium, heavy headache, numbness of the extremities, they had recourse to an emetic of ipecac.; and it was observed that vomiting of bile was always followed by amelioration. In plethoric subjects it was found proper to practice venesection before giving the emetic, but generally speaking, sanguine emissions seemed hurtful rather than useful. If these means did not arrest the progress of the disease, the physicians, always with the purpose of restoring the biliary secretions, returned again to calomel, of which they increased the doses sometimes to 10 grs. every hour, or even oftener. Concurrently with the internal treatment, they stimulated the skin with irritating frictions, surrounded the sick man with bricks, bags of chaff or oats, or ashes strongly heated, and eulogize loudly the effect of dry heat thus applied. Towards the close of the epidemic it frequently transformed itself into a bilious intermittent fever, with hepatic irritation. In this case they again gave calomel, but in smaller doses."

It was in the Caucasian provinces that the famous Elixir of Voroneje was most employed and trusted to. "At first it was thought to owe all its properties to the naphtha which enters into its composition, but ulterior experience has overthrown the hopes that had been conceived of its efficacy." Dr. P. styles the elixir *an incendiary remedy* adapted only to constitutions like those of the lower Russians, accustomed to the immoderate use of ardent spirits. We must acknowledge that the mortality was not more considerable among the Mussulmen who treated themselves generally with spirituous frictions, with water of goudron de bouleau, (tar from the birch) and fermented mare's milk mixed with garlic and salt."

The district of Bogodoukhov was one of the most fortunate localities in regard to the proportional mortality of the epidemic; which is set down here as low as 30 per cent., occurring in August, September and October. "The medication employed was generally as follows: on the appearance of the first symptoms venesection was ordinarily practised, they then gave some drops of essence of peppermint and tincture of opium. It often happened that the cure took place after the second dose. If the disease persisted, recourse was had to the dulcified sulphuric ether, or Hoffman's liquor, of which ten drops were given from time to time on a morsel of sugar. In the meanwhile the sick man was made to drink of water as cold as possible. The vomitings were sometimes combatted by the anti-emetic potion of Riviere, (?) with or without opium. The means most employed to modify the alvine evacuations was calomel, in doses of one grain every hour. If the diarrhœa was violent, four grains of Dover's powder were administered, at the same time the skin was stimulated either with hot or vapor baths, or by frictions with the Elixir of Voroneje, which quieted the spasms and restored heat to the surface."

The special treatment of certain physicians obtained celebrity. Among

the names thus noted is that of Dr. Dobrourarov of Kiakhov, whose formula is given us:

"Essence of peppermint,	1 part,	by weight.
Liquor of Hoffman,	6 "	"
Ethereal tincture of valerian root,	8 "	"

"It seems that a great many of the sick were cured by this remedy, even without the aid of a physician." The dose is not mentioned, though it is said of it, "One dose ordinarily sufficed; but it must be repeated whenever rejected by vomiting;" while heat and frictions were applied to bring on sweating.

The treatment of a Dr. Sledzievsk, of a hydropathic establishment at Kotchetka, is also said to have been attended with "numerous successes." At the first attack the patient was "made to drink a glass of very cold water, (4° of Reaumur) containing in solution a tablespoonful of kitchen salt; he was then wrapped in a sheet soaked in cold salt water and rubbed with the cloth for a quarter of an hour. Then he was wiped dry and rolled-in a double coverlet of woollen, in which he lay several hours, during which they gave him, every five minutes, a large spoonful of salt water at the temperature of zero. An abundant and general sweat indicated the crisis. As the symptoms grew lighter the intervals of the above draughts were lengthened, and towards the end a warm drink was substituted to keep up the sweating."

We have thought it proper to be somewhat precise as to the treatment described. We fear that those who have read and thought most upon the subject of this terrible pestilence will be ever found most ready to acknowledge the failure of our art in contest with it. At any rate, all must admit that our practice is still unsettled, and that it is our imperative duty to examine on all sides and inquire with the utmost assiduity after better measures and remedies more effectual than any which have yet been devised for its subjugation.

We proceed to trace briefly from our other miscellaneous sources, the farther history and progress of the present epidemic invasion of cholera. Our distance from the scene of its ravages, and the paucity of our materials, will of necessity render this portion of our record desultory and imperfect; in this respect, presenting a strong and unfavorable contrast with the very minute and connected essay of Dr. Verrollot, which we trust that gentleman will be induced to bring down to the current date, and indeed carry out through the whole of its visitation, destined we fear to resemble our former experience too closely, as well in protraction as in all other respects.

On the 24th October, 1847, the first case is stated to have occurred at Constantinople; no other took place until the 31st, after which it became epidemic and raged violently. On the 26th November, it appeared at Moscow, nearly the same time of year as in 1830. In December 14th, we read of it as showing itself at Vitebsk, a place on the road from Moscow towards Prussia.

During the winter it appeared to have made little or no progress, though by no means extinguished by the low temperature. In January, 1848, we know of its existence in Moscow and Vitebsk in the north of Europe; at Orfah and Diarbekir in Asiatic Turkey; and at Constantinople in the

southeast. So little was said throughout the month of February and March, that the journals of April are found to contain many intimations of a grateful or exulting belief, that it had expended its centrifugal force and died away. But these hopes were soon put an end to. In May, the capital of the Turkish empire was a second time terrified by its revival and renewed epidemic sway. In the course of that month, it spread to Marmora and Cutalia, in Asia Minor, and added new territory to its conquest in eastern Russia and Moldavia. Not yet extinct in Moscow, it did not reach St. Petersburg until about the middle of June; in the same month it was in Cronstadt, in Bucharest and at Abo in Finland. In July it scourged severely the armies in the Caucasus, both Russians and Circassians. In the same month, it appeared at Berlin. On the 17th, we hear of it in Aleppo, Asia Minor, extending in one direction; at Cairo, in Egypt, in another; and at Riga, on the Baltic, in a third: on the 26th, it was at Alexandria. In August it was raging at Berlin, and had appeared in Konigsburg, Warsaw and Vienna. Two cases are mentioned as being observed in vessels arriving from the Clyde, from the north of Europe, and one such in a ship at Trieste, from Constantinople. In September, it existed in Hamburg, where it extended widely and delayed long, affecting all Europe with expectation of its intrusion. Rumors of its appearence in various parts of Great Britain, were published from time to time, but nothing certain was known of its presence on the shores of that island, until official notice was given of cases on board a vessel at Hull, in October. About the end of that month, it is definitely stated, that several instances occurred in London, at Sunderland and in Edinburg. We need follow its route no farther. We hear that it does not spread as yet, with any considerable degree of rapidity, and we indulge the hope, tempered by serious apprehension, that it may linger and abate, repressed either by the low temperature or some of the other contingencies of the season of winter as heretofore.

On reviewing the gloomy history of its prevalence at the various points above recited, we are struck with the general correspondence of the present with the last fatal invasion of this disease, into the several countries of the civilized portion of the globe. In mode of progression, the resemblance is striking: it affects the same places, the same classes of subjects, nay the remark more than once presents itself, that its victims of to-day are the children of the parents who died of it 18 to 20 years since. The proportional mortality may be stated at about the same ratio, generally, to the whole population and to the number attacked. New remedies have shared the same defeat as the old, and no mode of treatment whatever seems to make any decided impression, on the result. Quarantine regulations and cordon sanitaires prove in general, as formerly, mortifying failures. All the old questions arise again, and are again warmly debated, with as little hope as ever of reaching a satisfactory decision. As before, all agree that the terrible influences of the pestilence are shed in most concentrated form upon the destitute, the unsheltered, the overworked, the intemperate, the degraded. It is the scourge of our vicious social state. Yet we must not deceive ourselves; we shall not be able to prevent, but only to modify its effects by any changes we may be able to make; for in tracing its course, we have met with it under every variety of circumstance and condition. Our boards of health and sani-

tary commissions must not promise too much, lest they deceive public expectation, and suffer from a just reäction. Cholera may reign in the sparse population of country places, though it is more despotic in the courts and alleys of crowded cities. The farm laborer and the artizan, are alike liable to its attacks. It marches over the arid plains of Arabia and Egypt, as well as through the swamps that border the Caspian sea, the Volga and the Danube. Its cause is efficient upon the steppes of Russia and amid the snows of Moscow, as well as in the paved streets of London and the steaming lanes of Cairo. We meet with it in the tent of the hadji of the desert as well as in the hovel of the beggar of St. Giles. This universality is a frightful feature, belonging to no other malady known to the human race. Science and art have set limits in a certain sense to every other pestilence; have said, "thus far and no farther shalt thou go, and here shall thy dark waves be stayed;" beyond this line of causation or predisposition we shall, some of us at least, find refuge; but in regard to cholera, we fly vainly from the city to the village, from the valley to the mountain, from the sea-coast to the far inland; wherever the social intercourse of life has reached, there we may be fatally assailed.

November, 1848.

ART. II.—*On Inflammation: Indications and Methodus Medendi.* By J. P. BATCHELDER, M. D. (Continued.)

OUR last paper closed with the consideration of general bleeding as a measure for the fulfilment of the first indication—the diminution of the *vis a tergo*, but experience having proved that that most efficient remedy is not admissible in all cases; and that in those in which it is proper, it cannot be carried to the necessary extent with entire safety to the patient, we are, therefore, constrained to look for other means, the most prominent of which are cathartics. Like bloodletting they act mainly as evacuants; not merely emptying the alimentary canal, but depleting the vessels. As counter irritants they are sometimes beneficial. In all these respects, their modus operandi* will be readily comprehended, as coinciding with the doctrines advanced by a recurrence to them and to the axioms on which they are founded.

As a cathartic, calomel is one of the best; if not the very best. Besides its virtues as an evacuant it possesses the quality of correcting the secretions, and is therefore eligible in most cases, and pre-eminently so in those in which the secretions are much disordered or vitiated. If the patient complains of a bitter taste, nausea, sense of weight or load at the stomach, and exhibits a tongue covered with a dark or yellow fur, an emetico-cathartic, or simple emetic, followed by cathartic medicines, may be administered with the happiest effect. In many instances in which the symptoms enumerated are present, an emetic which equalizes the circulation will be of great service. In our experience, that of Dessault, a little modified, is the best. His emetic was one grain of emetic

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* See remarks on Counter Irritants, page 27.

tartar in a pint of water taken at once. This dose may have been sufficient for a Frenchman; but unless the Gallic medicine is stronger than ours it will not, in a majority of cases, emeticize an American, on which account we direct six grains to be dissolved in as many table-spoonfuls of water, and one in a coffee-cupful of gruel or cold water, given every fifteen or twenty minutes until the puking commences, which should be encouraged by taking large draughts of some cold liquid immediately after each time vomiting. The patient must be instructed to imitate spontaneous vomiting as much as possible, and abstain from all efforts to assist in the operation—in other words, to let the medicine do its own work.* Emetics should be administered in the fore part of the evening, especially when we wish to break up the routine of a fever, or inflammation. The reason of this will readily occur to all. As an emetico-cathartic, the following compound has much to recommend it:

℞. S. m. hyd. grs. xij.
Pulv. antimonialis, grs. vj.
Tart. antim. gr. j.
Mix. To be taken at once in a little syrup.

The quantity of tart. antim, may be increased, diminished, or entirely omitted, as the case may require. This dose, if not sufficiently active as a cathartic, may be followed by salts and senna, or by salts only. When there is bile in the stomach the antimonial powder in doses of from six to ten grains is a sure and gentle emetic. The pulvis antimonialis, having lost favor with the profession, on account of alleged inefficiency, is rejected by some and sparingly used by others. Having employed it a great deal during a large portion of his professional life, the writer holds it in high estimation in febrile and inflammatory affections attended with considerable excitement. If preceded by bloodletting and cathartics proportioned to the severity of the case, it will seldom disappoint the expectation of the practitioner. The failure to produce the desired effect has probably arisen from one or more of the following causes—the bad quality of the medicine, too small doses, or omission to bleed and catharticize previous to its administration. Instead of being small, the dose should be as large and as often repeated as the stomach will bear. When saline cathartics are indicated, or from any cause preferred, the following is recommended, which occasionally acts as an emetico-cathartic:

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* In further illustration of the doctrine promulgated in these papers, we remark that the stomach belongs to organic life, and having a sphinctered outlet is governed by the same laws which govern all other organs of that class, as the bladder, etc. When that viscus acts gently the sphincter at the pylorus relaxes, and suffers the contents to pass, and no vomiting ensues; but if it act irregularly or violently, as when an emetic has been taken, the sphincter does not relax; but holds fast, and prevents the passage of the contents in that direction; and they are forced upward through the cardia, which constitutes vomiting; thus far the operation pertains to organic life and the patient suffers little distress from it; but why should he abstain from voluntary efforts? Because the muscles of volition, the organs of locomotion, experience fatigue which is peculiar to them; therefore if they are not exerted the vomiting will produce little or no exhaustion, or sense of weakness; indeed but slight disturbance in the system, a result ofttimes very desirable when patients requiring an emetic are much debilitated.

℞. Sulph. magnes. ℥ij.
Sulph. sod. ℥i.
Tart. antim. grs. iv.

Mix and dissolve in eight ounces of water. Dose, half or two-thirds of a wine-glassful every hour, hour and a half, or two hours, until it begins to operate.

In affections of the brain, requiring active catharsis, the following will act promptly and efficiently :

℞. Aloes, calomel and gamboge, āā ℈ij.
Tart. antim., grs. vj.
Croton oil, gtt. ij.

Mix and make into a mass, and divide into 20 pills—one to be taken every hour or two, until full catharsis is produced.

We have extensively used tart. antim. in the treatment of inflammation—particularly pneumonia in its first stage. Although of no great value in pleurisy, its use is not prohibited when inflammation in the lung has extended to the pleura. The writer's method of giving it, in that disease, is to begin with a quarter of a grain once in twenty or thirty minutes, until two doses have been taken, when half a grain should constitute the third dose, which is to be repeated in half an hour; at the end of the next half hour a grain should be administered. If given at such short intervals, the stomach and intestines soon lose their susceptibility to its impression, and seem not to be at all affected, even by enormous doses.* As soon as the disease seems to be pretty decidedly

* Connected with the repetition of emetic medicines, particularly tart. antim., is a fact of considerable practical importance: If a full, or rather over-dose of that article, or of ipecacuanha, (and perhaps of most other emetic drugs,) is given, and several or many repetitions are required, the succeeding doses may be regularly lessened, say one-fourth each time, with no diminution of effect. The writer has known a patient in the habit of taking ipecac. as an emetic, to be at last as effectually vomited by one-sixth of a grain as by twenty at first. In the treatment of all such diseases as require frequent vomiting, we may avail ourselves of this principle. On the other hand, if we commence the use of these articles in minute doses, and repeat them at short intervals, the system will soon lose its susceptibility to their peculiar stimulus, and the dose may be increased *ad infinitum*, almost without any appreciable effect. If repeated every twenty or thirty minutes, the dose may be doubled every other time, until it becomes very large; and yet no emesis or catharsis follows. Augmented thus, as by the rule of geometrical progression, the action of the heart is much lowered both in force and frequency, and the inflammatory affection disappears, as suggested in the text—why or wherefore we cannot exactly tell. In the administration of narcotics, particularly opium, the same principle holds. In some cases, the long-continued use of remedies of this class is necessary. As in the former example, the system loses its susceptibility for their particular impression, and the dose must be increased to a frightful extent; nor is this all—there is great danger that the habit, dreadful as it is, of opium taking, or rather opium eating, will be formed, and then the fatal drug cannot be dispensed with. It is of great importance to avoid these consequences, which may be done by making the first dose considerably larger than is demanded by the exigencies of the case, and each succeeding one less and less: suppose a case which will probably require the repetition of an anodyne two or three times daily, and that forty drops of laudanum is quite sufficient to produce the desired effect—fifty-five or sixty instead of forty should be administered at first, and each subsequent dose lessened one drop, perhaps two. In this way the dose will be continually getting smaller and smaller, while the effect remains the same, and the destructive habit is not formed. If the dose (40 drops) be given in the usual manner, after a short time the system, having lost its susceptibility to that dose, will not respond, and the quantity must be

checked, or subdued, which it will be in two or three days, the medicine should be discontinued altogether or partially, as the case may require, and mercury given, which will prove much more beneficial in the second stage than antimony. If the disease has passed the first stage the antimony should be withheld and the mercury given.

SECOND AND THIRD INDICATIONS OF CURE.

The second indication is: to diminish the impression made upon the capillaries and pores by the impulse of the fluids impinging against their inner surfaces and the effect of that impression. The third indication is, to lessen or take off the resistance of the pores.

As these indications are so intimately connected, and the remedies employed for their fulfilment so analogous, we shall consider them together.

It will be readily comprehended how lessening the action of the heart weakens the impression of the fluids upon the capillaries and the pores, and so contributes, as far as it goes, to fulfil the second indication; and also how that which weakens the forementioned impression will likewise lessen or take off the resistance of the pores, which constitutes the third indication; without the fulfilment of which, it is believed, that no inflammation of much standing will be cured.

That abatement of the momentum by the abstraction of blood is not of itself capable of preventing the morbid impulse, or wholly obviating its effects, is clear from the fact that the vessels contracting *pari passu*, with the abstraction of their contents, are in perpetual contact with them, consequently the impulse must be made and felt in proportion to its force and the sensibility of the vessels; hence the necessity of the second indication which is to diminish the impression and its effect. It is well to remember that the fulfilment of this indication contributes to that of the third; for if we lessen the force and effect of the impulse, the sphincter or pore will, as we have endeavored to show, relax; and furthermore, it may be proper to remark in this place, that although we have made three distinct indications of cure, they are so closely, naturally and philosophically connected that they almost necessarily resolve themselves into one, viz., the abatement of the force and effect of the impulse—that being done the pores will relax and the vessels be emptied or depleted and the cure accomplished. The medicines adapted to the fulfilment of these indications are of two kinds—such as act on the system generally, and such as act locally on the part affected. The former, by equalizing the circulation, diminish the impulse; and some of them, into the composition of which narcotics enter, lessen the effect of that impulse by obstructing the vascular sensibility. Belonging to this class are sudorifics—medicines of great importance, and by no means to be dispensed with; the best of which is the antimonial powder, either alone or combined with opium, by which its efficacy is in many instances increased—especially if the rules laid down have been observed. The Dover's pow-

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increased in order to secure the effect, and ten drops are added; in a few days another addition must be made, and another, and another; and so on, until half an ounce, instead of 40 drops, is demanded; and what is worse, even though the disease is removed, the patient is cursed with a habit more dreadful than death itself.

der, by itself, in as large doses as the stomach will bear, or combined with the pulvis antimonialis, will be found of great utility. Instead of the Dover's powder the writer has often substituted one composed of opium, camphor and ipecac., each one part, and nitrate of potash two parts; a preparation which certainly adds considerably to the efficiency of the antimonial powder. The dose may be regulated by the quantity of opium required in each individual case.

The old-fashioned compound, the spiritus Mindereri, is a valuable remedy; but which often fails from not being rightly administered. It should be given warm, in ounce doses, every hour or two, until the perspiration appears. The patient ought to be kept in bed with more than ordinary covering and made to drink freely of warm liquids. If there be much irritation, laudanum, or the elixir paregoric in appropriate doses may be added from time to time. Instead of being given alone, it may alternate with the sudorifics before mentioned, in which case it must be less frequently repeated.

The colchicum antumnale is often employed with advantage, especially after bloodletting. Combined with the digitalis, it is a tolerable substitute for the lancet in subjects not plethoric or athletic. By reducing the frequency and subduing the force of the heart's action, and promoting secretion and excretion, they coöperate with other evacuants in fulfilling the first indication; and by their narcotic influence are more capable of contributing to the fulfilment of the others. Calomel as an alterant, either by itself or combined with the antimonial powder—two grains of the former with four or six of the latter may alternate every fourth or sixth hour with the colchicum. In severe cases as in croup, laryngitis, etc., calomel must be given more frequently and in larger doses, with a view to its specific effect, or to the changes it is supposed to produce in the blood.* When colchicum has produced its specific effect,† even in a moderate degree its use may be suspended and the sudorifics continued. Digitalis, acting as a sedative, is a medicine of considerable power. Reducing the frequency and subduing the force of the heart's action, like venesection, it diminishes the *vis a tergo* and the impression; and in consequence is adapted to the fulfilment of the first and second indications, but must not in urgent cases supersede the use of the lancet. How much effect the foxglove has on the capillaries and pores, independent of its influence on the heart, is difficult to determine. Its narcotic and particularly its sedative powers, are too considerable to be overlooked. The forms of inflammation in which the writer has employed and found it most useful, are pleuritis and meningitis. In all chronic inflammations, like colchicum, it will be found most beneficial when the urine contains

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* The writer, judging from his own observation and experience, feels warranted in saying that very few cases, if treated on the principles inculcated in these papers will require or even justify the use of calomel to the extent deemed necessary by many practitioners.

† By the specific effect of colchicum, purging is not meant, that being unessential to its peculiar influence as a therapeutic agent; but may be looked on rather as a sign of its having taken effect. In fact its purgative operation seems not to differ materially from that of other cathartics.

an undue proportion of lithic acid or albumen ;* without one or the other of these contingencies neither of those medicines will be of much service. If the urine be merely turbid, or incline to a bloody appearance, as it sometimes does in chronic inflammation and in dropsy, very satisfactory results may be expected to follow the use of the digitalis.

TOPICAL REMEDIES.

The second class of remedies for the fulfilment of these indications are those which act locally; the object of which is to diminish the action of the vessels and lessen or take off the resistance of the pores in the diseased part. Their use presupposes the employment of such general remedies as may have been required.

LOCAL BLEEDING,

By cupping and scarifying, or by leeching, stands at the head of this class. Whatever causes the vessels to act less violently, or gently, will induce the pores to relax. By directly depleting the inflamed vessels topical bleeding lessens the cause of their distension or over-distension, by which their efforts to expel the contained fluids, or resist their distending force, will be rendered less intense as may be inferred from the mitigation of symptoms which follows this mode of depletion, and is commonly more marked if preceded by the general remedies which have been recommended. Moreover, local abstraction of blood frequently reduces the action of the heart; lowers the sensibility of the vessels; diminishes the impulse and its effect, and contributes in all these ways to restore the equilibrium of action, without which the pores will not relax and allow that effusion of lymph and serum which empties the vessels and completes the cure. In producing relaxation of the capillaries and pores, this method of bleeding acts upon another principle besides that of depleting the vessels.

By assuaging pain and mitigating suffering, it is equivalent to a pleasing impression and therefore causes relaxation; pleasant impressions induce relaxation, disagreeable impressions excite contraction and resistance, therefore in the treatment of inflammations, our applications should be made in accordance with one or the other of these principles. On account of the pain or irritation occasioned by cupping and scarifying leeching is preferable in superficial inflammations. When deeper seated, or when internal organs are involved, the former is to be preferred. In whichever way the blood is drawn, the quantity must be regulated by the judgment of the practitioner; the constitution, age and circumstances of the patient, and the effect of the depletion being taken into the account.

EXTERNAL APPLICATIONS.

The solution of the acetate of lead has been employed time out of

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* In all cases of pneumonia, and in most cerebral affections, the state and condition of the kidneys, and of their secretion, should be inquired into with great care.

mind, as an external local remedy, and in many instances with probable advantage. Although much used as it has seemed rather from imitation and habit, than a settled conviction of its real utility, it may be as good as almost any thing else with which we are acquainted. With laudanum or opium superadded, it certainly has a soothing and consequently beneficial effect; but whether it is any more useful than water with the aforesaid additions is somewhat questionable. The efficacy of saturnine applications has been attributed to a sedative power which they were supposed to possess. If they really had any such virtue, they would be entitled to great consideration. Could they lessen sensibility or vascular action, they would diminish the impulse of the fluids and its effect on the vessels; but it is to be regretted that the testimony of the profession is not very decided in their favor.

The solution of the acetate of ammonia, is an excellent application and may be used like the foregoing, with or without opium or laudanum.

Evaporating liquids, or such as produce cold, as ice-water or pounded ice, may be applied. The latter, on account of the absorption of the caloric of solution, (140° Fah.) is potent for good or for evil; we are therefore bound to consider in this place, the principle upon which cold, as an antiphlogistic remedy, acts. Causing the contraction of vessels subjected to its influence, it may be resorted to before the action of the heart has been roused, and while the local contractions which it induces, is able to resist effectually the *vis a tergo*:* but when the vessels have become over-distended, and the *vis a tergo* so strong, that the contraction produced by the cold is insufficient to force the fluids out of the capillaries of the part, the pain will be aggravated by cold applications. After bloodletting, catharsis, etc., by which the heart's power and action are lowered, they may be very proper and useful, but if the powers of life have been too much exhausted, such applications may produce a degree of contraction incompatible with the vitality of the vessels and gangrene ensue. The principles laid down in a former part of this paper in relation to pleasant or unpleasant impressions come in here most happily. When applications of low temperature are grateful to the feelings of the patient, they are proper; if disagreeable, they are improper and should give place to such as are warm.†

These principles furnish an infallible rule respecting the temperature of such appliances and settle the mooted question, whether lotions, poultices, etc., to an inflamed part, should be cold or warm.

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* Hence the utility of cold water applied immediately after a sprain or bruise, or the infliction of a wound by accident or by design, as in surgical operations. For many years past, the writer has been in the constant habit of using cold water after his operations, as soon as the plasters have had time to become well set, and to continue it for several days, say five or six.

† In making applications to an inflamed eye, even this rule should be followed with some caution. In some cases of chronic ophthalmia, the same effect is produced by the use of water. In ophthalmia, cold applications should be applied very extensively, to the whole head or most of it. In general they had better be tepid than warm; when the latter are employed, it should be only for a few minutes at a time. The objection to the long-continued application of poultices or fomentations to the eye, grows out of the anatomical structure of that organ. In that form of disease called "morbid sensibility of the retina," the writer has found that cold water to the eyes always keeps

OF COUNTER IRRITATION.

In the deeper-seated inflammations, and especially those which involve internal organs, great benefit may be derived from stimulating applications; but for want of a correct knowledge of the principle upon which their utility depends, it is to be feared that more hurt than good is not unfrequently done by them. The principle is—the stronger external, effaces the weaker internal impression. In the treatment of perhaps every case of deep-seated or internal inflammation, there is a "blistering point"—in other words, a time when irritating or stimulating applications should be made; a condition which cannot be recognized with certainty without a correct understanding of the principle on which rests the utility and safety of those applications. The object of blisters, rubefacients, etc., is mainly to relieve pain or uneasy feeling. The pain of inflammation, as we have seen, is caused by an over-distended or resisting state of the capillaries. If those vessels can be induced to relax, the pain and suffering will cease. Now, if the disagreeable impression made by the blister, which is external, be stronger than that made within by the fluids, the vessels not feeling the internal impression, relax, and the pain is relieved —entirely, if the relaxation be complete. If the impression of the blister be not, however, stronger than that made by the fluids within, the symptoms will be aggravated; there may, indeed, be no vesiccation, because the internal is stronger than the external impression. The aggravation of the symptoms is explainable in the following manner: the impression of the blister has been sufficiently powerful to induce the vessels to relax or forego their resistance; but the *vis a tergo* has not been suitably diminished, of course the relaxed vessels will be again crowded, and as much over-distended and act as violently as before; for which reason the pores will not relax, consequently the pain of resistance will be renewed. Before the blistering or stimulating application can be made with prospect of relief, or even without the hazard or risk of injury, the following questions must be answered in each individual case: Will the irritation of the blister induce the vessels to relax? And if so, has the action of the heart, or the *vis a tergo*, been so much subdued that it will not force the fluids into the diseased vessels, and cause them to be again over-distended, and therefore prompted again to resist painfully? The stimulating, or "blistering point," is then attained only when the vessels will relax in consequence of the application, and the *vis a tergo* so much abated as not to cause them to be again over-distended. Prior to this, a blister will certainly produce the ill consequences to which we have alluded. In the treatment of affections of the joints, the writer has most frequently noticed this error in practice. He has witnessed many instances in which practitioners have applied a few leeches to a joint, and

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up or aggravates the difficulty; so much so, that he does not allow patients affected with it, to wash the eye at all, nor in bad cases, the upper part of the face, much less to let any get within the lids. In such cases, patients are in the habit of applying the cold water to the eyes freely, and not unfrequently open them when submerged in it, and they will tell you that the eyes invariably feel the better for it, which is undoubtedly true, but this effect is only temporary, the disease is no less certainly kept up and aggravated by the practice. Our principles furnish the explanation.

followed them with a large blister; the result was what might have been anticipated by one familiar with the principle—the joint became swollen, hot, and painful; requiring a long succession of fomentations, poultices, and general treatment, for the removal of the mischief done by the ill-timed blister. He has likewise often seen the same bad practice enacted in pneumonia and pleurisy—particularly the latter. The patient had been bled, purged, blistered, and, as a matter of course, made worse by the last remedy, which ought to have been deferred until the action of the heart had been subdued to the degree required. In all such cases, the blister, when too soon applied, may indeed cause the pores internally to relax; hence the effusion which sometimes (in truth not very unfrequently) follows the application of a large blister to the chest in pleurisy, to the abdomen in peritonitis, or to a joint in synovitis, before the inflammation has been sufficiently subdued by bleeding, etc.* The vessels, it is true, have been emptied and the inflammation cured by the effusion; but another disease, as dropsy of the chest, abdomen or joint, is produced—quite an undesirable result. Effusion is likewise very apt to follow the application of a blister in phrenitis, and many a child has lost its life in consequence. After effusion, blistering, by promoting absorption, may be exceedingly proper and useful.

In one other respect this class of remedies deserves consideration. Inflammation in the incipient or forming stage is often removed at once by the fortunate application of a local stimulus; we say fortunate, because the principle on which it acts under such circumstances has not been very clearly pointed out or very well understood. The vessels directly involved are crowded and over-distended with blood, while those immediately surrounding retain their natural condition, or rather assume the attitude of resistance, which prevents the over-distended vessels from forcing their contents onward, and in consequence returning to their normal state. If now a strong stimulant is applied which makes a more vigorous impression externally than is made internally by the fluids contained in the aforesaid vessels—they will relax and give the fluids in the first a more easy passage through them and a more ready admission into the last, by which the ordinary circulation in the part is restored. In this way inflammation of the conjunctiva is cured at once by stimulating collyria; of the tonsils and throat by stimulating gargles; and gonorrhea by stimulating injections. But how often do we see matters made worse by blunders perpetrated by those who do not fully comprehend the principle upon which success is founded. The general state of the patient, that of the circulation and of the heart's action, and the duration of the difficulty, should be investigated before resorting to such measures.

LOTIONS, ETC.

Formerly it was the custom to apply medicated lotions, but, with few exceptions, they are no better than simple water, except so far as they

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* I have recently seen a case of pleurisy in which a large quantity of serum was effused into the cavity of the thorax immediately on the drawing of an extensive blister on the side directly over the seat of the pain.

amuse the patient or friends. Under such circumstances they will probably do the more good and for this reason it may be well to use them. Infusions of hops, cicuta, stramonium or mallows, as fomentations, are comforting and useful. Besides their sedative and narcotic qualities they make a pleasant impression which causes the capillaries and pores to relax—thus easing pain by taking off resistance.

Poultices of bread and milk, or medicated with linseed or narcotics, are also beneficial. In a great majority of cases, however, they may be dispensed with and cloths moistened with water, or some of the infusions just mentioned, laid on the part and covered with oiled silk, used in their stead. A sponge, imbued with those liquids and applied in the same manner, will be found convenient, especially if it be desirable to make gentle pressure, the sponge being applied and bound with a bandage and moistened afterwards.

POSITION.

In conclusion—a word respecting position. This is a matter which is certainly too much neglected. Gravity, by retarding the flow of blood into an inflamed part, lessens the *vis a tergo*, the impulse and its effect; moreover, by facilitating the egress of fluids, it diminishes their distending force which keeps the capillaries on the stretch and prompts them to make painful resistance. Position is thus made to answer all the purposes of an evacuant without the debilitating effects of depletion. Let it be remembered that emptying the vessels of the inflamed part is all that is required for the cure of inflammation, consequently position, when fully consulted, greatly abates the demand and sometimes supersedes the necessity for active depletion, therefore the inflamed part should be elevated as much as is consistent with the comfort of the patient. So thoroughly convinced is the writer of the importance of position that he treats no case of inflammation, surgical or medical, without reference to it.

P. S.—In another point of view, posture is important, and in some respects corroborative of the views presented and entertained in these papers.

Early in his professional career the writer was called to amputate the limb of a patient so much debilitated that none of the gentlemen in consultation would advise to the operation, from the conviction that the patient would die in its performance—without it, all agreed that death was inevitable. After much reflection and mature deliberation he arrived at the conclusion, that, such was the weakness of the heart, if the limb was raised for a short time, nearly all the blood it contained would gravitate into the body, which would then actually contain more of the vital fluid for the support of functions essential to life than before; and furthermore that the effect might be enhanced, if needed, by the elevation of other members. Not that "rashness triumphed over caution," but confidence in the principle prevailed, and prompted to the operation. The limb was elevated to a perpendicular, and sustained in that posture until bloodless and nearly pulseless, when the torniquet was tightened and the operation commenced and finished. The other limbs were also somewhat raised and kept elevated for several days. The recovery was slow, but fortunate for both patient and surgeon, whose first

amputation it was. Since then he has not unfrequently, in similar cases, resorted to the same expedient and always with satisfaction.

In extreme cases, all the limbs may be raised even to a right angle with the body, and sustained in that position for a longer or a shorter time, or until they are emptied of their blood, which may be retained in the trunk for present and temporary use, by compressing the arteries. So far as the writer knows, this practice originated with him, at the time above specified. Every obstetrician will readily appreciate its value and importance in dangerous floodings—conjoined with opium in large doses, which produces relaxation in the cerebral capillaries, it may be instrumental in saving many valuable lives by contributing to supply with blood the nervous centres whose functions may thus be kept up until the system has time to rally.

ART. III.—*A Sarcomatous Tumor, containing Hair and Stearine, Removed from the Womb.* By GUNNING S. BEDFORD, M. D., Professor of Midwifery, and the Diseases of Women and Children, in the University of New-York.

ON Wednesday, the 7th of April, 1847, Mr. D. called at my office, at 4 o'clock, P. M., and requested me to pay a professional visit to his wife. She had been attended for seven weeks by two medical gentlemen who, on the Sunday before I saw her, had voluntarily withdrawn their attendance, under the conviction that her case was beyond remedy, and with the opinion fully expressed to Mr. D. and his friends, that, in all probability, she would survive but a few hours. The husband, in his interview with me, spoke kindly of the physicians, and remarked that he was without the slightest hope, he and his friends having watched with the suffering patient the two previous nights, expecting her death at any moment. With such a representation of the case, I frankly told the husband I thought a visit from me useless, but if it would afford him any gratification I would cheerfully accompany him. He repeated his desire that I should see his wife; and, on being introduced into her chamber, I found her lying on her back, her face pale and emaciated, with every indication of excessive prostration; the expression of her countenance, too, gave evidence of great suffering. Her pulse was thready, and beat 120 to the minute. Such was her exhaustion, that, when I addressed a question to her, it became necessary for me to place my ear to her lips to distinguish her answer, and then her articulation was almost inaudible. In fact the appearance of the patient was that of a dying woman. Her respiration was labored, and the abdomen as much distended as is usual at the end of the ninth month of gestation. On percussing the abdomen I distinctly recognized fluctuation; and in attempting to introduce my finger into the vagina with the view if possible of ascertaining the character of the enlargement, I felt at the opening of the vulva a soft, elastic tumor projecting through the mouth of the womb, which was dilated to the size of a dollar piece. The parietes of the mouth of the womb thus dilated were extremely attenuated, and did not appear to be thicker than ordinary writing paper. I found no difficulty in introducing my finger between the tumor and internal surface of the cervix, the adhesion being

so delicate as to yield to the slightest effort. I satisfied myself that there was no action in the womb; the patient had not experienced any thing like labor pains, and the dilatation of the cervix was the result merely of mechanical pressure produced by the tumor within the uterus. Whilst pressing gently with my finger on the tumor as it presented at the mouth of the womb, and grasping with the other hand the abdominal enlargement, I could again distinctly feel fluctuation, and found also that I comprehended the tumor between my two hands thus applied. Again, in placing my finger on the outer portion of the posterior lip of the uterus, and seizing with the other hand the upper surface of the tumor through the abdominal walls, alternately elevating and depressing the two hands, it was evident that I embraced the womb itself, which was immensely distended by the growth of the tumor. In making an examination *per rectum*, I could without difficulty detect the enlarged uterus. These circumstances, together with the important fact that the abdominal enlargement was uniform on its surface, possessing nothing of the features usually attending extra-uterine growths, such as ovarian and fibrous tumors, etc., caused me to arrive at the conclusion that, in the present case, the tumor was exclusively *intra-uterine*. It will be perceived that on this decision depended the remote hope of giving to my suffering and almost dying patient even temporary relief from her agony. Having, therefore, formed my opinion as to the seat of the tumor, and partially as to its nature, I stated to the husband, that, desperate as the case was, and imminently perilous as would of necessity be any attempt to remove the tumor in the exhausted and almost hopeless situation of his wife, yet it was my opinion that the tumor could be removed—although the *serious hazard was that she would sink under the operation*. This opinion was given emphatically, without reserve, and unaccompanied by a word of comment calculated to urge consent to an operation, which presented but little prospect of permanent relief, and could only be justified by the reasonable expectation, that if the patient should survive the removal of the tumor, her suffering would be mitigated, and her progress to the grave rendered comparatively comfortable. The opinion was communicated to the patient by her husband, and she expressed an ardent desire that the operation should be performed without delay, remarking that she was prepared to encounter every thing, even death itself, with the remote hope of temporary relief from the agony occasioned by the pressure of the tumor. The husband and friends acquiescing fully in this appeal of the suffering patient, I left the house, promising to return in half an hour and perform the operation. On my return I was accompanied by my friend, Dr. Detmold, and two of my pupils, Messrs. Burgess and Woodcock.

These gentlemen heard with me the following particulars of the case as related by the husband and sister of the patient: Mrs. D. was 47 years of age, and married in 1832. Soon after her marriage she was attacked with cholera; and during her convalescence from this disease, she miscarried. Her health had been more or less infirm for the last ten years. Her menstrual periods had always been regular, with the exception of the last year, during which time they occurred about once in two or three months, and then not freely. This she imputed to *change of life*, and the circumstance did not attract any particular attention. Her abdomen

had begun to enlarge in July, 1846, and continued to do so to the present time. In January last, she suffered greatly from distension of the bladder, and could not void her urine except in small quantities at a time, accompanied by excessive pain. For this she consulted a medical man, who found it necessary to introduce the catheter, from time to time, to relieve the bladder. She commenced as early as January to be constipated, and defecation was attended with excruciating suffering. These difficulties about the bladder and bowels continued to increase, and for weeks before I saw her, she repeatedly passed over ten days without an evacuation—medicines having no effect, and injections per rectum immediately returning, without bringing away any fæcal matter. Her urine was voided in very small quantities, not more than two table-spoonfuls at a time, and it was nearly the color of blood. It was impossible for her to evacuate the bladder except when resting on her elbows and knees; this position, however, occasioned so much fatigue that, in her present exhausted condition, she could not avail herself of it. In a word, the agony of this unhappy sufferer was induced almost entirely by the pain consequent upon the attempt to evacuate either the bladder or rectum. With these facts before me, together with a knowledge of the position and bearings of the tumor, it was not difficult to arrive at the important conclusion that the pain and distress in the bladder and rectum were due to *mechanical pressure of the intra-uterine growth.* At my request, Dr. Detmold examined the patient; and, in view of all the circumstances of the case, concurred with me in opinion that, *without an operation, she could survive but a few hours; whilst, if she did not sink under the attempt to remove the tumor, her distress would be sensibly palliated, and her life possibly prolonged.*

With the understanding, therefore, of the uncertainty and immediate danger of the operation—an understanding fully appreciated by the patient and her friends—I proceeded to remove the tumor in the following manner:—A mattress was arranged on a table, and Mrs. D. placed on her back, her hips being brought to the edge of the mattress, the thighs flexed on the pelvis, and an assistant on either side to support the feet and limbs. I then introduced the index-finger of the right hand into the womb, steadying the tumor with the other hand applied to the abdomen, and succeeded in directing my finger its full length between the tumor and cervix of the uterus; this was done with great caution, for the parietes of the cervix were so extremely thin, that indiscreet manipulation would almost certainly have produced rupture of the womb. With the view, therefore, of preventing such a result, I thought it more desirable to break up the adhesions of the tumor simply with the finger, than incur the hazard of introducing instruments into the uterine cavity. In proportion as the adhesions yielded, I grasped the tumor; and, without much effort, was enabled to remove it with my hand in fragments. Having brought away in this manner all the solid portions of the tumor, and carrying my hand well into the cavity of the womb, I distinctly felt a sac pressing, as it were, against my finger. This I immediately ruptured, and there escaped by measurement three quarts of fluid, which resembled in all its physical qualities, with the exception of the smell, pure pus. This fluid was collected in a vase as it passed from the womb, and, half an hour afterwards, on examining it, we found it no longer liquid,

but presenting a solid mass, precisely like *hardened lard*. It was evident, therefore, that the temperature of the body kept this substance in a fluid state. As soon as the fluid had escaped, I introduced my hand still higher up, and felt something resembling, in touch, human hair. It was, in fact, *a large mass of human hair matted together*, with no other vestige of an embryo—there was no trace of scalp, or any thing else, save the hair. I grasped this body, and removed it from the womb entire, it being so compact as not to separate in fragments. The womb, thus freed of its contents, contracted; and there was no loss of blood. After the solid parts of the tumor had been removed, there escaped from the bladder an incredible quantity of high-colored urine, which gave such relief to the patient that it caused her to exclaim in simple yet, emphatic language, "Doctor, I am in Heaven!" It may here be asked, why the catheter had not been introduced before commencing the operation. In answer, I would merely remark, that every proper attempt had been made to effect this desirable object; but it was found physically impossible, without inflicting serious injury on the patient, from the pressure of the tumor on the neck of this organ.

Mrs. D. bore the operation with a heroism which greatly surprised us; and although it became necessary to suspend occasionally all manipulation to rally her from fainting, which occurred three different times; yet, considering her extreme prostration, it may well be deemed a matter of amazement that she did not sink. The operation being completed, the patient was placed comfortably in her bed. In the course of half an hour, her breathing became easy, the pulse fell ten beats in the minute, and there was an expression of composure about her countenance, which gave sincere joy to all of us, feeling as we did an intense and unaffected anxiety as to the immediate issue of the case. Without the aid of an anodyne, she fell into a sleep, which lasted six hours, the first repose she had enjoyed for many long nights of agony. When she awoke, she appeared greatly refreshed, and although extremely prostrated, she seemed to take pleasure in gazing on her friends, to each of whom she gave a look of recognition. On the morning after the operation, her bowels were spontaneously and freely moved, a large quantity of hard fæcal matter passing away. Subsequently, simple injections of warm water sufficed to afford her a daily evacuation, and the urine was discharged freely and without obstruction. Mrs. D. continued to improve in appetite, digestion, and strength, and although her friends were admonished not to be too sanguine as to her recovery, yet they regarded the fear of any other issue as utterly groundless. On 22d of April, fifteen days after the operation, she began to fail; and in defiance of every thing which could be brought to bear in her case, she continued to sink, and expired on the 25th of April, having survived the operation eighteen days.

I have no doubt that the anomalous mass found in the womb of this patient, was the product of a *blighted ovum*, and it may be reasonably asked whether her chances of recovery would not have been enhanced, if the tumor had been removed at an earlier period, before the powers of the system had become exhausted by long continued and uninterrupted suffering.

The adhesions, it will be remembered, of the shapeless mass to the internal surface of the womb were slight. The stearine, which escaped

after the sac was punctured, I regard as nothing more than the fœtal brain and other fatty portions of the system in solution. These circumstances, together with the quantity of human hair removed from the womb, and the fact that the tumor was comparatively of rapid growth, are, in my judgment, strong proof of previous conception.

I cannot conclude this paper, without returning my thanks to Dr. Detmold for his prompt and efficient aid, not only during the operation, but also in the subsequent attendance. My pupils, Messrs. Burgess and Woodcock are also entitled to the highest commendation. Throughout the case, they exhibited a zeal worthy of the profession, and which may be looked upon as an index of their future success.

ART. IV.—*Extracts from my Note-Book.* By LEWIS A. SAYRE, M. D. Prosector to the Professor of Surgery, Coll. Phys. and Surg., University of the State of New York.

Case. 1.—*Chorea induced by anxiety, on account of a deformity; and cured by removal of the same.*

Mary Pheeny, Pearl-street, aged sixteen, was brought to me in March, 1848, for chorea, with which she had been afflicted for two years previous, and had also had several epileptic convulsions.

She was a large, robust, healthy-looking girl, but exceedingly desponding and gloomy, almost an idiot in appearance, wishing to be by herself and seldom speaking to any one.

She was strangely deformed in her feet and one hand; having ten toes on her left foot, and eight on the right, with their proper number of phalanges, and each articulated with a separate metatarsal bone, except the second and third on the left foot, which were joined together, so as to resemble one toe with two nails, which gave that foot the appearance of but nine toes: but after their removal I found a double row of phalangeal bones, enclosed in a common tegumentary envelope.

On the right hand she had five fingers, beside an extra joint upon the thumb.

Upon taking hold of her hand, my attention was drawn to her extra finger, and when I alluded to it, she gave a hysterical sob, followed immediately by a severe convulsive fit, caused, as her mother informed me, by my allusion to her deformity, as she was exceedingly sensitive upon that point.

After talking to her mother a few moments, she wished me to look at her feet as they were also deformed; and upon my examining them, another convulsive fit was induced, which led me to believe, that the cause of disturbance in her nervous system, upon which these fits and the chorea depended, was anxiety of mind about her deformity: and she had pondered on it so constantly, and let it obtain such complete control of her nervous system, that any allusion to her misfortune, would be immediately followed by a fit.

After examining the case carefully, I found every organ healthy, and all their functions properly performed. She had been under treatment for some time past, for suppressed menstruation, which had been suc-

cessful; and for the last two months, her menstruation had been perfectly regular.*

From that moment her countenance assumed a cheerful smiling aspect, she laughed and talked half hysterically, and walked about with almost a phrenzied delight, and exhibited not the slightest evidence of chorea. She was exceedingly anxious to have the operation performed at once, but it was deferred in order to take the casts, from which the accompanying drawings were made.

On the 9th March, assisted by Drs. Trudeau and Van Beuren, I removed her supernumerary toes, having first put the patient under the influence of ether, which had the desired effect of benumbing all sensation, and when restored to consciousness, she expressed great surprise at their removal.

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* Dr. Porcher, now of Charleston, who treated her for some time, has published the case in the Charleston Medical Journal and Review, for March, 1848, and states that she was perfectly cured in four weeks, by the use of carb. iron and rhubarb.

If he had had reference to her menstruation simply, he would have been correct. But in including in the word cure, the chorea and epilepsy under which she labored, (as I presume he does, for he has headed his article, "St. Vitus' Dance") he is evidently mistaken; for her gait was exceedingly unsteady when she came to my office, and the fact of her having two convulsive fits upon my alluding to her deformity, proves that her epilepsy and chorea still continued—and it is to correct this statement, that I have by the advice of several medical friends made the case public.

She was not relieved of her chorea and epilepsy, until she was assured that her deformity could be removed: from that moment her countenance assumed a cheerful aspect, and her chorea and epilepsy left her entirely, without any medical treatment whatever, and have never returned, a period of more than seven months.

The parts were brought in close apposition by sutures, straps and firm bandages, and dressed with cold water. Union of the whole wound, in each foot, took place by first intention without the formation of any pus, and in twenty-three days after the operation, she walked to my office, (nearly one mile) and the second casts were taken from her feet, from which the improved drawings were made.

The most singular feature in this case is, that from the moment she became convinced that her feet could be improved, her chorea left her and has not returned; neither has she had a single epileptic convulsion.

Remarks.—The mother in this case, attributed the deformity to a fright from an elephant, and as her friends testify, repeatedly spoke of it previous to the birth of the child—whether the fright had anything to do with the peculiar development or not, it is impossible for me positively to say. But inasmuch as a number of well-attested cases have occurred, in which the mother has, previous to delivery, accurately described the deformity, which has, been found to exist and agree so exactly with her previous description, that it becomes important for us to attempt at least, to ascertain the sympathies existing between the mother and child, and the *laws* which govern those sympathies, and trace cause and effect if possible.

If, for instance, we find, that from some horrid sight or loathsome object presented to the female during pregnancy, she becomes impressed with the idea at birth her child will bear this or that particular deformity, and time proves her fears well grounded, and her suppositions are found true, it is but reasonable to suppose (from analogy) that could we have made an equally strong impression of a different kind, we would have produced a different kind of growth or formation according to the impression under which she labored.

We all admit, that it is by the nerves we receive impressions, and that it is through them, that the will is conveyed to the different parts of the system: that the vessels are the executors of the will, and that secretion, absorption, the different growths, developments, etc., are the result of this work, carried on or performed by the vessels, and controlled by the nerves. Or in other words, the brain and nervous mass superintend or order; the vessels obey these orders; and the different growths, etc., are the result of the work.

If, then, the nervous system or controlling power be disturbed, the orders are given wrong, the vessels obeying these wrong orders, and acting in compliance with them, an unnatural or deformed product, is the necessary result.

We all admit again, that the child has not an independent existence until *extra-uterine* life; neither has it an independent will: but it also is dependent upon the mother, is under her control, and must of course act in accordance with hers.

If then, the will, thought, impressions, mind or controlling power, so to speak, exist entirely in the brain and nervous masses, when endowed with life, (as without them, we can receive no impressions,) and if the vessels act entirely under the control of these nerves: and the different growths, developments, etc., are the result of the action of these vessels; and if the will of the child is dependent entirely upon that of the mother, it follows, as a matter of course, that the development of the child being

the result of the action of its vessels, which vessels are controlled by its nervous system, and it again, entirely dependent upon the mother, that these various developments must be in accordance with the various impresssions, made upon her mind.

Case 2. *Spina Bifida—tumor removed by ligature.*

S. F., Avenue B, aged two years, was brought to me on the 1st of June, 1844, with a fluctuating pendulous tumor, about the size of a hen's egg, with a small neck; situated on the back of the neck over the sixth cervical vertebra, which the mother stated was of its present size when the child was born. It had several small blue spots on its surface, the size of a sixpence, where the integuments appeared thin, and there was danger of its bursting. There was no pain or tenderness on handling. The child was well developed and perfectly healthy, had always been so, had never had fits or convulsions; sensation and motion perfect, and no defect in the bony arches could be detected. From these circumstances, I advised its removal, and Dr. Parker concurring in this opinion, I proceeded to effect it, at the college on the 5th of June, assisted by Drs. Parker and Watts, by passing a needle through the centre of its neck, armed with a double ligature, and after tying one on each side, passed two circles entirely around the neck, drawing them so tight as to strangulate the mass entirely, and then excised it with one stroke of the knife. It was then covered with plaster and the ligatures left to slough away; about a teaspoonful of blood was lost. The child cried during the operation severely, although previously it had given no evidence of pain even under severe pressure.

Anatomical appearances.—Upon examining the tumor, it was found to consist of a firm cyst of condensed cellular tissue, and filled with about ℥2 of pale fluid; to our surprise it contained two large nerves, which came from the spine and terminated by numerous branches in its circumference, giving the internal appearance of the tumor, a resemblance to the cells of a honey-comb, one of them was as large as the median of an adult.

Not expecting to find these nerves, as there was no sensibility to the tumor, I was rather alarmed, and anticipated serious consequences, and watched the case very closely. No unpleasant occurrences took place, the child ate, drank and slept well, in fact did not, after the first few hours, seem to be affected by the operation in the least. And on the 23d day, the ligatures came away leaving the wound entirely healed, and the scar resembling that from vaccination.

Query.—Was not my success owing entirely to the strangulation of the ligature, thereby cutting off all communication with the spinal column, and in causing it to heal over close to its origin, and thereby supplying the place of bony arches?

Case 3. *Spina Bifida, with post-mortem of vertebræ.*

Mrs. B., 49 Anthony-st., was delivered in Dec. 1845, of a male child, with spina bifida of the four lower cervical and the first dorsal vertebræ. There was a large transparent tumor, the size of a man's fist, with the integuments distended almost to bursting, and the spinal column separated nearly two inches. Deeming the case hopeless, nothing was done

except directing the mother to be careful and not to let the child lie upon its back, nor allow any pressure upon it. Notwithstanding the unfavorable prospect, the child continued to grow and improve rapidly, and at the end of a year, the bony arches had been completely thrown across the tumor, and the spinous processes could be distinctly traced, the tumor shrivelled down like a scrotum and presented a very similar appearance to the case just related above. I proposed in a few months operating upon it in the same way as in the former case; but unfortunately the child had severe enteritis and died in Feb. 1847. I removed the whole cervical and dorsal portion of the spine with the nerves, and found at the seventh cervical vertebra a small hole, through which passed three or four small nerves, which terminated in the tumor outside, and was precisely similar to the one I removed from Mrs. F.'s child.

This specimen is in the museum of the College of Phys. and Surgeons.

ART. V.—*On the Period of Lactation and its Connexion with subsequent Gestation.* By J. H. SHEARMAN, M. D.

EVERY process in nature, has its assigned period, or space of time, in which it is performed. *Observation*, shows us that the sun which lights us revolves on its axis in a certain number of our days, and that a series of planets, of which our own world is one, revolve around it, in certain definite, but differing spaces of time. *Induction and deduction* assist us to the conclusion, that all the stars of heaven are either suns or planets, and that they all move on their axes and in their orbits, in definite periods of time.

All the phenomena of our world are periodic. The seasons, day and night, the weather, the formation and production of the three great kingdoms of nature—the mineral, vegetable, and animal, are all periodic. Some of the most apparently casual and incalculable occurrences have been shown to be subject to the law of periodicity; as the return of comets, a succession of hot or cold years, abundant or defective harvests, the recurrence of epidemics, the revolutions of empires and opinions, and the rise and progress of discoveries. Indeed the whole universe must be subject to laws of time and place, and therefore of periodicity, or how could there be any plan, progression, or development? How could there be prophecy, prediction and fulfilment?

From this aeronautic survey of the periodic constitution of the universe, we descend to the apparently insignificant, but in reality important consideration, of the periodic laws of woman.

She commences her career as a puling and unobservant babe, and progresses through the conditions of infancy, childhood, adolescence, and puberty to maturity; when she becomes a reproducer of her race, a former and a moulder of society. Nine months she was *in utero*, while being formed from a mere speck scarce visible, into a full grown and a full formed child. For nine months more she draws her sustenance from her mother's breasts, ere she had teeth enough to masticate her food herself. Seven years she spent acquiring muscular and osseous strength enough to walk, to run, to leap, and dance, and intellectual and moral

power enough—to know, to reason, and to feel. Seven more she spends, without the consciousness of sex, in gathering thought and feeling, and then seven more she spends in her development as woman, and she is complete, a reproducer and an educator of her race.

When she commences the distinctive portion of her life, her period of womanhood, she has a monthly flow of a peculiar fluid from her uterus, and this continues, if she be not pregnant or disordered, for twenty years or more, a monthly preservation of, and preparation for, the mystery and felicity of her being—the process of gestation.

If wedded love and happy impregnation be her lot, every two years of her productive period, she adds another human being to the race, and furnishes the commonwealth with muscle, mind and morals, preserves her own life by the due performance of her functions, and gives her husband happiness and health, and lengthens out his life.

The period of lactation, as appointed by the laws of unobstructed and propitious marriage, is about nine months. Then is the woman fit again for the performance of gestation; and the milk ceases to flow, or it is of little value to the child. Gestation may commence again as early as the seventh, or not until the twelfth month of lactation, but the average period is the ninth.

The reasons why a woman occupies the period of nine months, in the two processes of utero-gestation and lactation, must be sought for in the constitution of the world in which she lives, and in the nature and design of that peculiar race of beings, which she thus produces and supports. The world which she inhabits, though immense, compared with the small space which she requires, living or dead, is yet a bounded space; and does not furnish sustenance quite so gratuitously as at first sight we might suppose. Some space and time are requisitely interposed between each human advent, or there would be nothing for the race, but a mere mass of misery and death.

The geological phenomena which are presented to us, teach us, that each condition of our globe, which has fulfilled its part in the great act of planetary destiny, is yet subservient to the greater drama of the destiny of solar stellaries; and must have been performed in periodic times, in order to accord with all the greater movements and performance of the vast whole.

The earth, on which we are performing our apportioned task, is now accomplishing its most important cycle. The race of man, the highest habitant, that yet has graced its surface, like other races with an animal nature, is not eternally to reproduce. There is a limit, within which the last gestation and lactation, must be finally accomplished. The last scene of the last act of the grand drama of the human race will be performed and the catastrophe of all the nations, tribes, and individuals will appear.

The generation and gestation, birth, lactation, education, and formation of the race, must all depend upon, be subject to, the greater movements of the mechanism of the heavens.

The present cycle of the earth must be performed within a certain space of time. The whole of the arrangements and productions of the earth, are for the ministry of good to man. The number and condition of the race, must be a definite arrangement, or nothing could be carried out

by them, or known of them. The definite condition of the race, being given, the definite condition of each one must be admitted. The greater law includes the less. Hence every human advent, is accomplished by the combinated laws of the great universe.

Though man appears upon the earth but as an animal, he has a spiritual nature; and as he progesses in his being, the wonderful disparity between himself and other animals, becomes most manifest. This spiritual nature has its laws of progress and development, and being of a higher nature than the animal, subjects the lower, necessarily, to its requirements. This spiritual nature has for its companion and domestic, the intelligent nature, which requires a long and careful training. These are a few of the great series of the code of laws which regulate the periodic movements and phenomena of our bodies, especially of those of woman.

The body of a human being is designed to last for seventy years or more. It is a principle of nature well known to artisans and machinists, that an article of manufacture, or a machine, which is designed to last for a long period, must be composed of finer particles, and have more labor spent upon it, than will be required for one which is to last a shorter time. Upon this principle, the body of a human being necessarily must be slow in its formation and its growth.

The uterus when first impregnated, is not larger than an ordinary pear, nor capable of containing half an ounce of fluid. At the termination of its pregnancy, it contains a child weighing eight or nine pounds, a placenta and its membranes weighing a pound or more, and two or three pints, or even quarts, of liquor amnii. The increase of the uterus, is much more extraordinary as a phenomenon, than the increase of the fœtus, but both of them must be limited, or the death of the woman would ensue. What are the laws and causes of the limitation of this increase?

At first, the uterus is merely wanted as a bag or bladder, to contain the ovum, with its membranes and its fluids. The muscular structure, therefore, is of a very slight and feeble texture, and scarcely manifests the proper quality of muscle—contraction and dilation. The ovum is a quiet substance, requiring nothing more than a safe place for preservation, and therefore is sufficiently protected and provided for, by a membranous sac.

In time, however, the fœtus is developed, and as its muscularity increases with its size, and as the pressure on the sac in which it is contained increases, resistance to its pressure and its movements, becomes a requisite provision for the preservation and well-being of itself and mother. The uterus, from the necessity of the case, becomes increasingly a muscular organ, and as it grows in size, the muscular tissue is augmented, to resist the pressure and the movements of the fœtus.

If these two processes and powers progress in equal ratio, their limitation must depend upon some third condition or provision. This is discovered in the final conformation of the woman. Her form admits of but a certain definite amount of size and action of the uterus; when that is passed, resistance from the superior and primary organization—the mother—overpowers the secondary and inferior—that of the uterus—and that in turn, compels the tertiary—the fœtus—to submit.

The fœtus grows, becomes more muscular and active, and the uterus

expands and strengthens, to contain, and to resist, the growing augmentation and activity of the fœtus. At length, encroachments on the mother's life are made, and now the energy of the mother, through the medium of the uterus, is employed in order to dislodge the burden that oppresses her.

The muscles of the abdomen and dorsum, the thorax, and the pelvis, and the lumbi, all conspire and all coöperate to force the intruder from his hitherto most welcome sanctuary.

The uterus being weakest at the aperture, must offer least resistance there, and consequently will give way to the contractile force of the superior muscles, and the efforts of the fœtus for its liberty. At length the forces of the mother and the child are all combined and concentrated on the act of utromission, and the child is born.

The human offspring is the most dependent on the mother of any offspring of the animal kingdom. During the period of lactation it is absolutely helpless, and would perish, but for the protection and provision of the mother. It has no teeth to masticate its food, could it be obtained; but as it does not gain the power and property of locomotion until it has attained its second year, there is a physical impossibility of sustaining its existence, were it left alone. The mother's time, attention, feeling, happiness and interest, are all required and well laid out upon her infant. No capital and skill and labor are so well employed, by any one, as by the mother. Every investment yields a rich and fruitful profiting return.

Now, if a woman could recommence gestation as soon as parturition was accomplished, she would be unable to fulfil her duty to, or feel the pleasure of, her offspring. The process of lactation would be seriously interfered with, or entirely superseded; and the care and tendance of her offspring, instead of being, as it is, the highest pleasure of her nature, would become a burden most intolerable to her. The period of lactation, therefore, is determined morally and physically, by the lapse of time which is required before another impregnation can be properly effected. That appears to be, from all the circumstances of the case, from seven to twelve months—or an average of nine.

In every natural process of gestation, a woman's health and whole condition are improved; because, in order to sustain her parasitic offspring, she must assimilate more food, and therefore make more blood, which gives a fulness to her person, and an energy to her functions, which she has not in the unimpregnated condition. So, in the process of lactation, a woman keeps up her improved condition, and is the healthier and happier for nourishing her offspring.

All functions that are intermittent or occasional, are provided with an organization fitted for their particular office. The mouth, in man, is not adapted to continual mastication; and when it is perverted to so foreign, low, and base a purpose, as the chewing of tobacco, how soon the symmetry and beauteous adaptation of the organ are impaired. The bowels and the rectum were not meant for frequent peristaltic motion, and when that function is performed too frequently, the organization being unfitted for it, suffers exceedingly, and soon becomes most fearfully deranged.

Now, both gestation and lactation are intended to be no more than occasional performances. In order for gestation to commence, the uterus must have the conformation suited for the passage of the semen, by capil-

lary attraction and ascent. This cannot take place with the uterus in the condition which is requisite for carrying a full-grown fœtus. The uterus must, therefore, be contracted, and a great proportion of its substance be absorbed, after a parturition, before another impregnation can occur. Supposing we allow that in a few cases, impregnation has occurred within a month from parturition, they only prove how soon the process of re-preparation can be accomplished. Indeed, if we admit, what we are readily disposed to, that the processes of pregnancy and lactation may simultaneously proceed in a few cases, we are no more entitled to conclude that this is the design of woman's constitution, than that a woman was designed for bearing twins, or quadruplets, because she sometimes bears them.

The muscular fibres of the uterus have a peculiar organization. They augment in length, in breadth and thickness, and spread out in fasciculi in different directions. One series of them seems to be a counterbalance of the other, and thus they are prevented from contracting prematurely. Their organization is much more elaborate than that of commoner muscles. They nurture and accumulate their force for one grand display, and in that act exhaust their power, disorganize their substance. They must be repaired, if not renewed, for future service. The old worn-out materials must be removed, and much repair accomplished ere the uterus can re-perform its function.

This operation can be very properly conducted while the next process to gestation—that of lactation—is carried on. The vigorous and plethoric state of the circulation would be injurious to the mother, had she no active occupation for her blood. The admirable function of lactation preserves her health and happiness, while it sustains her infant's life, and gives her time and opportunity as well as means for reparation of her reproducing organs.

The chemical constituents of the milk, require the very same materials from the blood that are employed in nourishing the fœtus in the uterus—nitrogenous and saline combinations. It cannot therefore be in harmony with the monogenous adaptation of woman that she should produce and nourish simultaneously.

How then is the period of lactation determined? In proportion as the child obtains the powers of respiration, locomotion and mastication, more solid food is requisite for its well being, and as it necessarily is in the midst of other food, its senses and its appetite increasingly become excited by the food, and finally demand it. The intensity of interest which the mother feels for the well-being of her offspring, turns her attention and her feelings to her function of lactation, so long as her infant depends upon her absolutely for support. This feeling, operating on that portion of the brain which supplies the mammæ, the caloric of the brain, in its galvanic state, excites the blood-vessels to nourish and supply the mammal glands, for their required service. They necessarily enlarge and multiply, and keep up a *pro hac vice* or abnormal circulation and supply.

If the intensity of interest for the infant be maintained, the milk will flow continuously, for a much longer period than the natural term. Hence mothers, who are widowed during their lactation, frequently lengthen out the process, to enjoy the comfort which they find in the

dependance of their infants on their care and sustenance. Hence, also, when a woman dreads another impregnation, she may, by the withholding of her feeling and desire for impregnation, render the uterus incapable of its distinctive function—while by her wish to lengthen out the process of lactation, she accomplishes her object.

When marriage is as it should be, a spiritual chord, not a mere joyless and insipid unison; then, impregnation is the woman's highest aim and feeling, and lactation is but secondary. She gives her infant sustenance because she has gestated it; and while she looks with rich delight upon the sustentation, care and culture of her offspring, the process of creation and production is the one which fires her soul with the most intense delight and admiration. For a woman to be so anxious for impregnation as to neglect the sustentation of her offspring would be a departure from both the moral and the physical laws of her being; and therefore an insanity. Such a case of course is, of necessity, a very rare one. The mere desire of commerce with the male sex, must not be confounded with the aspiration after offspring. Every true wife appreciates the difference, and every true husband who possesses such a wife can estimate her feelings, though he cannot have them.

We see then that there are both physical and moral barriers to the processes of lactation and gestation being simultaneous. If it were possible for woman to perform these processes together, she would be such a mere producing, nourishing machine, as to unfit her for the offices of wife and mother. It is a matter of the highest moment to a woman to be conscious of her duties and her interests, in order to attend to them; and therefore every increase of our knowledge of them is exceedingly desirable.

In order to sustain the process of lactation, a woman must assimilate more food than is required for her own sustenance, and this gives to the organs of digestion and assimilation, an activity and increase which invigorate and enlarge the body. Not only so, but there must be a greater quantity of food employed, in order to perform the process of lactation, than if the child were fed direct, as in gestation. The milk is a secretion, and in all secretions, there is a portion only of the blood employed. That portion of the blood from which the milk has been secerned, is now no longer fit for circulation, and must be re-assimilated before it can be used for any purpose of the animal economy.

By consequence, there must be an increased amount of the excretions, or there will be depositions in the caverns, sacs, and tissues of the body. Hence, often, women who have suckled frequently and long, become pinguidenous, and lose their comeliness, activity and health. The ingestive and assimilative processes exceed the formative, distributive and egestive ones, and serious depositions soon take place, impeding and obstructing many of the functions requisite for life and happiness. One of the sequences of long lactation is sterility. The ovaries become imbedded in a mass of fat, the fallopian tubes obstructed, and the uterus and vagina overlayed with adipose tissue, so as to be deprived of much of their contractile sensibility.

If lack of proper sustenance be one of the conditions of a lactating woman, she is less fitted to endure a long siege at the breast. The horrors which a woman may endure from pregnancy and suckling, when she is deprived of suitable and sufficient sustenance, are too shocking to dwell

upon in such a paper as the present, but some notice must be taken of the injuries inflicted by the consequent absorption of the tissues and their interstitial substances.

It often happens that mere poverty is the great reason why a woman wishes to continue the function of lactation, for the express purpose of avoiding impregnation. Let her be shown that this is bad economy. Except she might destroy her offspring—the most abhorrent crime of human nature—she must support it. The most expensive process is that of suckling it. To feed the child direct is one third cheaper. The elements of food are then employed intact, not as in suckling, by election. The time, the means and the endurances of suckling, if laid out on some wholesome profitable labor, would, with the preservation of her health, support her child, and render both as comfortable as a woman and her offspring in such cases can be.

If she continue to perform the process of lactation after the natural term, under the disadvantages of poor and insufficient food, her organs will be decomposed, the particles essential to the sustentation of the infant will be used to help to form the milk, and she will undergo the process of disintegration and decay.

Her bones will have to furnish phosphate of lime; her brain will have to part with sulphur, phosphorus, chlorine, and alkalies and earths; her adipose tissue will be removed to keep her own lungs burning and to warm her offspring; and her blood will be deprived of most of its high nitrogenous and hydrogenous compounds. The elements of her animal organization will be so seriously interfered with, that loss of strength, ill health, bad spirits, and degraded views and feelings, will be the certain consequence. She neither will be fit for mother, wife nor nurse.

Nothing contributes more to health, in women who perform the processes of gestation and lactation, than a sufficiency of suitable labor. The lady, who, from her position, thinks she must not labor—the idle and the dissolute woman who has no moral motive to excite to labor—and the feeble who are incapable of labor—are in a poor and undesirable state of organization. The woman who from her necessities is obliged to work, and from her moral feelings labors cheerfully and thankfully, is better off than the most wealthy and refined, who eschew the health-inducing properties of labor.

The acts of walking, riding, dancing, travelling and gymnastizing are not substitutes for labor. As there is no other way to make a mother, but by impregnation, gestation and parturition, so there is no other way to be in health, except by the performance of some labor. As doing is a requisite to being, so well-doing is essential to well-being. The moral and the mental satisfaction which arise from the performance of some act are most essential elements of health.

The rule then for the period of lactation, we have found to be that which administers most happiness to all concerned. This is the principle of true direction in every case. Find out what this is, and we find the truth which we are seeking for. The period of suckling then is about nine months; which is the best both for the mother and the child, the father and society, and even the race at large.

Perhaps I passed too lightly over the continuance of the lactation for the purpose of avoiding impregnation. It is a vice of the same kind as

onanism and abortion. The degradation of the latter are apparent, though by no means so appalling in the estimation of the perpetrators and society at large, as I regard them. The semen of the man, when rightly constituted, is an essential but concreted offspring of his triple nature—animal, mental, and spiritual. The only use of it which he can make, is to deposit it, in the appropriate manner, in the woman's womb. There is a pure and high gratification in doing this, if it be done according to the whole laws of his being.

If a man do not love the woman with whom he has the sexual commerce, the only gratification which he can experience, is that of being freed from an unpleasant fulness of his testes. This can be done without the proper use of woman's generative organs, or without the use of woman in any way at all. At all events, it can be done without depositing the semen in the womb. But of what value is such an act or process? The passage of the urine or the fæces is of essential consequence to health and life. It must come periodically, and be periodically discharged, if health and life are to continue. But this is not so with the semen. I never shall forget the loathed sense of degradation once expressed by a high-minded, suffering lady, who had a keen and vivid sense of what a marriage should be for a woman. She had been the victim of a husband of bad habits many years, but at length resolved to leave him. Drawing her graceful person up with dignity to her full height, she exclaimed, "I will not be a night-convenience to him any longer."

In abortion, after the woman has performed the highest act of a created being—that of receiving an emanation from another being, and uniting it with her own, until it has become a separate though united being, dependent on her for sustentation and support—she suddenly disrupts the ties of love and nature, and expels a part both of herself and of another with whom she has united—though all her organs and her constitution are constructed for the preservation and the nouriture of her parasitic offspring. The sexual commerce and the act of impregnation are not necessary to the life nor health of woman; but the preservation and the sustentation of her ovum are; and she who can deliberately force the ovum from her womb, in time would strangle her matured offspring, or desert it, if the temptation to the act were but presented opportunely.

I am too well aware the practice of abortion is become so fashionable, that to make even an allusion to it, will be very painful to a most important class of persons, very necessary to the profit and prosperity of the physician. I know they will not thank me, much less be likely to employ me, for expressing my opinions. I feel that I should say, in the just language of that character which, next to any known to be divine, I love to study:

> "Forgive me this my virtue—
> For in the fatness of these pursy times,
> Virtue itself, of vice must pardon beg,
> Yea, curb and woo, for leave to do him good."

If there be any practices which reduce the dignity of man, and majesty of woman, "to infamy and degradation, deep as lowest hell and dark damnation," those practices are onanism and abortion. The spiritual and

the mental natures are dragged down into the most debasing cesspools of embruted and diabolized carnality. The man perverts a function which, when rightly used, lifts him up to the dignity of a creator—and yet he makes it a mere selfish, vile, abhorred, and loathed evacuation, without purpose, end or aim. Self-slaughter is the appropriate end of self-pollution. The woman, leaving her high station as developer and producer of intelligence and love, perverts her womb from an embowered shrine of beauty and of glory, into a cavern of dark death and pestilent putrefaction—the slaughter-house and grave of hatred-nursed humanity.

Once let a woman practise this foul crime, and farewell to her delicacy and her dignity. She has descended from the throne of wife and mother-dom, and sat down on the stool of harlotry and whoredom. The sexual commerce, without the end or aim designed by our Creator, is a worse vice than any which afflicts or mars our nature.

N. B. In my last communication, (in the November number,) I made some observations on the medical knowledge of Shakspeare, in which I was afraid I stood so completely alone as to be almost ridiculously singular. I am happy to find that Dr. George Moore, the learned and ingenious author of "The Power of the Soul over the Body," has the following remarks:—"He (Shakspeare) was so observant of nature, and so well distinguished the apparent from the actual, that *his descriptions, even of disease, are so marvellously truthful, that the teacher of pathology may often quote them as the best guides to his pupils.*" This, to me, is a consoling sign of progression, and an encouragement to think, and write my thoughts.

ART. VI.—*Extracts from the Reports of the Proceedings of the New-York Pathological Society.* (Selected and prepared by Committee of Publication.)

[IN presenting to the profession the following report of the New-York Pathological Society, it has been thought best to commence with its early records, and in so doing the committee find that there are many valuable original memoirs which, from their intrinsic merit, deserve a place in the published reports. These memoirs will appear among the proceedings as fast as the space of this journal will admit. At the same time care will be taken not to exclude the reports of cases, specimens, etc., a goodly number of which will be continued in each report.—*Com. of Pub.*]

Remarks on Aneurisms of Aorta originating near the Heart.

By T. M. MARKOE, M. D.

I propose to call your attention this evening to some very brief considerations on that form of aneurism of the aorta which takes its origin at the very commencement of the artery in close proximity to the heart. Aneurisms originating in this situation, present some important differences in symptoms, progress and termination, from those arising in any other portion of the aorta, and it is more particularly in relation to their being the cause of sudden death, frequently without any premonitory symptoms, that I propose to consider them, and endeavor to explain the anatomical reasons of the peculiarities they present. My attention was first attracted to this subject by the following case.

Sarah Mason, aged 26, a mulatto prostitute, got up on Sunday morning before the rest of the people sleeping in the same room had left their beds. Those who noticed her get up, said she appeared perfectly well and made no complaint. She went down stairs and remained about 15 minutes, during which time she was seen by nobody. She then returned to her sleeping-room and laid down on the bed, still attracting no attention by any thing in her appearance or manner, and making no complaint. She had lain down but a few minutes when she was heard to struggle and gasp, like one suffocating, and almost before any one could get to her assistance, she was dead. On inquiring into her previous history, we found that though her profession had led her into exceedingly irregular and intemperate habits, she was considered a remarkably healthy person, and in particular had never complained of any symptoms of disease about the chest. On examining the body ten hours after death, the external appearances were those of remarkably good health; the body well developed and finely formed. No appearance of œdema about the ankles. As poison was suspected to have been swallowed, our attention was first directed to the stomach. That organ was found empty, very much contracted, and its coats unusually thick. The mucous membrane was wrinkled into large rugæ, generally injected with blood, and in some portions rather softer than natural. It was covered with an abundance of yellowish, frothy mucus. The intestinal canal presented no morbid appearance whatever. The liver was considerably enlarged, passing below the ribs and reaching into the right hypochondrium; its incised surface did not differ materially from one in a healthy state. On raising the sternum, the first thing that presented itself was the pericardium, forming an immense distended sac, pushing aside and covering the lungs; these latter organs being remarkably healthy, free from adhesions, and unusually free from blood. On opening this sac, six or eight ounces of clear yellow serum flowed out, and a clot of coagulated blood was found, in quantity at least eight ounces, closely enveloping the heart. The surface of the pericardium was healthy, and the heart of the natural size. On looking further, an aneurism was discovered springing from the under part of the arch of the aorta nearly opposite the origin of the arteria innominata. It was about the size of a goose-egg, and in the lower fourth of its extent involved that portion of the artery which is covered by the pericardium. On laying open the aorta it was found to be a false aneurism, communicating with the artery by an opening of the size of a sixpenny piece, with rounded and abrupt edges, at which edge the middle coat of artery appeared to cease. In the greater portion of its extent he walls of the aneurism were very thick and well protected by numerous layers of organized fibrin; in that part which was covered by pericardium there was scarcely any lymph deposited, and the walls at this part were, of course, quite thin. It was here that rupture had taken place, the inner membrane presenting a straight single laceration of nearly an inch, while the pericardium was only torn about one-third of that distance. The opening was unobstructed and communicated freely between the cavity of the aneurism and the pericardium. The other organs, as far as examined, were sound, excepting a small encysted tumor containi ng clear serum on one of the ovaria. The head was not opened.

On looking over the books, I find the termination of aneurism of the

aorta by bursting into the pericardium is exceedingly rare. Dr. Hope makes this remark: "Rupture into pericardium is very rare. Laennec never met with an instance; and the first that has fallen under our obsertion occurred recently at St. George's Hospital." I find, however, in looking over the works of those who have more specially written on this subject, as Scarpa, Morgagni, Hodgson, and Guthrie, and some others, twelve cases in which the manner of death and pathological appearances are stated in detail. In every one of these cases the death was sudden; in ten of them it was instantaneous; in one, death took place in a quarter of an hour after the invasion of fatal symptoms; and in one life was prolonged nearly an hour. In nine of the cases some account is given of the previous history of the case; and what is very remarkable, of the nine thus stated, six had enjoyed perfect health, or at any rate, had presented no symptoms leading to suspicions of any thoracic disease. In all these six cases, where the patient had appeared to be in perfect health, the deaths were instantaneous. One woman, for instance, went to bed perfectly well, and in the act of copulation instantly expired. Another, whose case is detailed by Morgagni, was a weaver by trade, had gone to her loom apparently in perfect health. She was in the act of setting up a new piece of work, when she uttered a single exclamation and fell dead. Scarpa mentions a similar case of a young soldier, who fell dead while conversing with a companion; and, indeed, in all of the cases particular mention is made of the suddenness of the stroke of death. In the three cases which are stated to have suffered for some time before death with symptoms of their disease, only one died suddenly, the other two died, one in a quarter of an hour, and the other in an hour, and in each of these three very large aneurisms existed, or extensive disease of the coats of aorta, accounting very satisfactorily for the previous symptoms they had presented. In the six which had presented no symptoms before death, only one had an aneurism of considerable size, in all the others there were found either very small aneurisms existing near the heart, or a slight disease of the coats in the same situation without any enlargement. All the cases agree in this one circumstance, either the pericardium formed a portion of the wall of the aneurism, or the diseased artery was that portion covered by pericardium, and through this membrane rupture took place in all the cases, filling and distending its cavity with the effused blood, in quantity varying from a few ounces to several pounds. Now, taking these seven cases together, including the one related above, we have seven persons falling instantly dead from disease of the aorta near the heart, leading to rupture of that vessel into the pericardial sac. I do not wish to be understood to assert that sudden death is peculiar to such aneurisms, for all of us have probably seen such an event happen in aneurisms seated elsewhere, but I think we are warranted in stating that what is a rare and extraordinary circumstance in other aneurisms, is the most common occurrence in this particular form, and though instant death may not be rare in other aneurisms, yet instant death without any previous indication of disease, may, I think, be said to be of extremely rare occurrence.

In endeavoring to account for these circumstances, which appear to me quite peculiar to this form of disease, we must bear in mind the modes in which aneurismal, or other sacs exposed to distending forces, are rup-

tured. We may say that there are three ways in which this event is brought about. 1. By the process of absorption and true ulcerative perforation. 2. By inflammatory softening or actual mortification of tissues, inducing them to yield to pressure. 3. By simple laceration of healthy tissues. The first two modes of rupture, namely, ulceration or inflammatory softening, are altogether the most common, and the vast proportion of aneurisms that terminate by rupture at all, burst in one or the other of these ways. Thus the œsophagus, stomach, intestines, lungs, and the external surface, are almost invariably perforated, and it is exceedingly rare in any of these organs to find any thing like laceration, without previous inflammatory action having in some way affected the cohesion of the parts. The consequence of this previous inflammatory action is, that some local pain or disturbed function announces a certain time before death that the organ is suffering which is about to become the seat of perforation. Thus, in the stomach, such an event announces itself by nausea and vomiting, or perhaps only intense precordial anxiety, in the intestines severe colicky pains are frequently the only symptoms, while in the lungs more or less dyspnœa is usually present. Again, when the perforation has actually occurred, the death, though usually sudden, is by no means generally instantaneous, and this because the first openings are usually small and more or less obstructed by the products of the inflammation which nature has set up in the parts around. This is more particularly true of those aneurisms which burst into the substance of the lungs and those which burst on the external surface. When, however, tissues comparatively healthy give way to the force of distention, it is generally over a considerable extent the opening is free and unobstructed, and more resembles an incision made with a sharp instrument, as is noticed in specimen presented. This kind of rupture is found to take place most commonly in the serous cavity of the pericardium, the pleuræ, and the peritoneum. Let us look now for a moment at the anatomical peculiarities which in those aneurisms near the heart predispose to laceration. These are found in the fact that the aorta in its first portions is destitute of the third or cellular coat, and has its place supplied by the inelastic, inextensible serous lining of the pericardium, with a trifling amount of intervening cellular tissue. In all the rest of the course of this, as well as the smaller arteries, this cellular coat is found, and it is this covering which, yielding slowly after the inner coats are weakened or destroyed by disease, forms the sac of the aneurism. An aneurism may, therefore, be properly considered as a provision of nature to prevent death from the erosion of arteries, for were it not for this property of the cellular coat the cases of those persons who suffer from ætheromatous disease of the arteries would, I imagine, be very short indeed. When, now, the disease which is the cause of aneurism exists in this first portion of the aorta, we have the lining membrane and the fibrous coat destroyed, and we have remaining to resist the outward pressure, not the elastic loose cellular texture of the third coat easily taking on adhesive inflammation and strengthening itself by attaching itself to the neighboring organs, but the pericardial serous membrane, thin and unsupported by cellular tissue around, and in its own texture hard and unyielding. If under these circumstances the distending force within is very great, or if at any moment it becomes suddenly increased, laceration takes place and the pericardium

is distended to its utmost capacity with blood. This explanation, drawn from the comparative inextensibility of the pericardium, is so natural and so satisfactory that all the authors who speak of this subject have adopted it. Mr. Guthrie, however, though he admits the fact that aneurisms in this situation rarely attain a considerable size without bursting, is not willing to admit the explanation given above. He gives an account of a specimen in Hunter's museum, which he himself says is unique, in which an immense aneurismal dilatation of the aorta existed, commencing at its junction with the heart and including the portion of the artery covered by pericardium and extending far along the arch. Reasoning from this specimen that the pericardium is distensible, he rejects our explanation, and refers the early rupture of these aneurisms to a difference in the nature of the original disease of the coats, without stating precisely in what he considers that difference to consist. That the pericardium in common with other serous membranes is, to a certain extent, extensible, cannot be doubted, but I think it is also quite clear that it does not possess the quality of yielding in a limited space to the same degree that loose cellular tissue does; the evidence drawn from post-mortem examinations goes to show that the pericardium in this situation actually does not yield to distention; and lastly, by his own admission, the specimen in which he has found this distention to take place, is so rare as to be a pathological curiosity. Without occupying any more time on this point, I will merely state, that there is in the New-York Hospital museum a specimen almost exactly similar to the one described by Mr. Guthrie. In this specimen there is an enormous dilatation of the aorta from the heart onwards, and this specimen at first sight seems to prove Mr. Guthrie's views, but on a closer inspection it rather favors the contrary opinion, for the pericardial portion of the aorta, though it has yielded to a certain extent, has by no means kept pace with the enormous distention of the other tissues; indeed, I do not think it has yielded much more than in the specimen of small aneurism I have presented, which seems to show, as far as one case will go, that its tendency is rather to resist than to yield to distending forces. To return now to the progress of the cases under consideration, when the sac gives way, of course the sac of the pericardium is instantly distended to its utmost with blood. The quantity which this fibrous sac will contain varies from twelve to perhaps thirty-six ounces, making a rough estimate from the published cases. Though this amount would be insufficient to destroy life if gradually drawn from a vein in the arm, yet the rapid abstraction of so considerable a quantity of arterial blood almost directly from the left ventricle is abundantly sufficient instantly to paralyze the heart's action, and I doubt not that such paralysis is in these cases the immediate cause of death. Some rare instances are spoken of, in which, either from extraordinary tenacity of life, or more probably from the slowness with which the blood escaped, life has been prolonged for a certain time after rupture of the aorta into the pericardium. Such a case of the pericardium becoming an aneurismal sac in itself, I have not found given in detail, though one or two authors mention the possibility of its occurrence. In regard to the amount of the distending force in an aneurism such as the one presented, it is exceedingly difficult to form an accurate calculation, but from such as I have made I am disposed to think that it is much greater than is commonly imagined. The calcu-

lations of the force of the heart's action are exceedingly discordant, and therefore doubtful. If, however, we take the most moderate and those founded on the most reasonable experiments, those of Hales, we shall consider its force to be about 40 pounds on each square inch of the aorta. Now, if we suppose an aneurism to have an orifice of half an *inch square*, the pressure on that orifice will be of course ten pounds. Let this aneurism have an internal superficial extent of four inches square, and on the principle in hydrostatics that fluids transmit pressure equally in all directions, we find that the sum of the distending forces within will be equal to 640 lbs. To show the considerable discrepancy, however, which exists among writers, I may state that if we take Boulli's estimate of the force of the heart as the true one, we shall find by using the same calculations as above, that the pressure on the aneurismal walls would amount to 3,155,000 lbs., which is equivalent to 1,577½ tons. On the other hand, if we adopt Keill's estimate of the heart's force, the aneurism will only have to resist the exceedingly moderate pressure of 138 ounces. Thus far in regard to the suddenness of the termination of these cases, and its explanation. The fact that these cases are announced by no previous symptoms will, after what has been said, suggest its own explanation, viz., that these tumors rarely attain a size sufficient to give rise to suspicious symptoms before they burst, their first, last, and only symptom may therefore be truly said to be the instantaneous death of the patient. —*July*, 1844.

Adhesion of Lips of Os Uteri and Abscess of the Cervix, from Injury by Instruments during Labor.

By James Crane, M. D.

Mary Graham, aged 32 years applied at the Northern Dispensary, (July 20, 1843,) for relief from leucorrhœa. She has had one child, which was delivered by instruments, five years since. Says, "she has not enjoyed good health since that time." Complains of a constant pain in the bottom of her belly, which is relieved by taking the recumbent posture. Also pain in the back. Menstruates regularly every month. Has no show of any account. The catamenial discharge is not continual, but comes and goes. Is suffering under its effects for three days, but the actual loss of blood lasts only for a few hours, during which time she changes only a single napkin. Her monthly periods are ushered in with attacks of sick headache. Suffers from leucorrhœa between menstrual periods.

Touch. By the touch the neck is found to be irregular and nodulated. A distinct, circumscribed hardness, of the size of a common bullet, is discovered above the lip on the posterior wall, extending towards the body of the uterus, which is not enlarged.

Speculum. To the eye the neck looked small, pointed, knobbed, and of a pale rose-color, with the exception of a small nodule on the edge of the os, which was of a bluish color. There was no trace of the lips. The os was found with difficulty, and was a mere circular pin-hole, scarcely admitting the thinnest end of a probe. Through it was oozing a dark, viscid, bloody drop of fluid.

July 26th. Passed the blunt end of a small steel bougie into the os

with difficulty. Through it was oozing a little blood, mixed with mucus. The os appeared to be obliterated by adhesion of lips, except at this minute central aperture, and from its edge extends a bluish line which is evidently a cicatrix.

August 4th. Patient has suffered from excessive pain in the back since her last visit. Has a good deal of irritation about the bladder. Cannot sit down to pass water. Yesterday was seized with colicky pain and a chill, which was followed by fever and sweating. The first and only weed.

Speculum. Immediately upon introducing the speculum, discovered pure pus, mixed with blood, issuing from the os, of an excessively fœtid character. By pressing the instrument against the os it escaped in a large quantity—one ounce at least. Coughing increases the discharge. A small bougie was now passed into the cavity of the uterus, and its withdrawal was followed by an excessive gush of matter. After this discharge the cervix is found to be excessively flabby. The upper lip is pale and smaller than the lower, which is more livid.

By actual touch the uterus feels enlarged. Anteriorly, towards the left side and behind the pubis, some hardness and fulness is discovered. The circumscribed hardness of neck has disappeared. The uterus is not enlarged above the pubis, nor is there any abdominal disease.

August 15th. Has had a good deal of pain in the bottom of the belly for a day or two. There is slight discharge on linen. Appetite good. Urine high-colored, and some pain about the meatus before passing it. Menses have not appeared, although they ought to have done so.

Speculum. The lividity and flaccidity of the neck continue. Pus of the best kind escapes in small quantity. The os is a mere pin-hole, and admits with difficulty a conical bougie, No. 2, at point. When the bougie is introduced it is firmly held, and the neck can be drawn forwards and backwards by it, like a flaccid bag. The size of the neck is diminished one half, and it seems to be but a mere sac.

August 21st. Patient has menstruated for some days, and much more copiously than for five years past. Is now sick.

Speculum. There is no pus passing through the os, but thick, black, bloody mucus in small quantity. Flexible bougie No. 3, (conical,) passes 1¼ inches and strikes against a fleshy base. No. 5 passes the same distance, but is strongly grasped on extraction. No. 7 cannot be passed. The appearance of the neck is the same. The os is more dilated. There was no pain in menstruation.

August 30th. Has a greenish discharge and a feeling of weakness in the region of the uterus.

Speculum. Thick pus is again flowing from the os in abundance. Bougies Nos. 7 and 10 were easily passed into the cavity of the uterus, and followed by the application of nit. argent within the os and upon the neck externally.

The woman did not return again.

Case of Inflammation of the Portal Vein.

By Israel Moses, M. D.

Mrs. ——, aged 32, of temperate habits, after a fit of passion in May last, became jaundiced; in twenty-four hours afterward she was attacked

with fever which continued till within a fortnight of her admission into hospital. At this time she was emaciating, had œdema of the feet and ascites, and the superficial veins were very prominent. She had been out visiting the previous night, and while out was attacked with delirium. When brought into hospital she was in a collapsed condition. She was in hospital three days. She was delirious during the first forty-eight hours, the last twenty-four calm but somewhat irrational. The skin was icterode. She had vomiting, diarrhœa, dark green evacuations, also bloody, from hæmorrhoids. From these she had also much hemorrhage before her admission. P. M. The liver not much enlarged, the spleen decidedly so. There were old coatings of lymph upon the peritoneal surface of each. The internal structure of the liver was coarse and granular, very yellow and mottled with ochre-colored spots. The minutest ramifications of the portal vein were burdened, thickened and filled with a fibrinous mass, or in other words, obliterated by fibrine. There was a large effusion in the right pleural cavity and in the abdomen, and the surface of the intestines was covered with a thin layer of old lymph. In the large branches of the vein the coagulum was adherent to the inside of the vessel and made one substance with its coats.—*Nov.* 6, 1845.

Case of Spina Bifida terminating in Rupture of the Tumor.—Death three days afterward.

By A. G. Elliot, M. D.

Dr. Elliot presented the cadaver of a child who had spina bifida, and which died on the 12th day. At birth the tumor was small but rapidly increased. Sac ruptured on the ninth day and it lived three days afterwards. Hydrocephalus existed and the bones of the head were more separated than at birth. It had fever and refused to nurse. The three lower dorsal vertebra and first lumbar were bifid; the sacrum not involved. Dr. Elliot supposed the child to have died of exhaustion from the great discharge of pus from the wound. Very slight convulsions occurred for forty-eight hours before death, and occasional slight twitchings of the hands and face. After the first four days it had paralysis of the lower extremities, but had till death control over the bladder and rectum. When born the upper part of the tumor was translucent. The rupture took place on the lower and opaque portion. After death, on compressing the head, pus escaped from the upper part of the tumor.—*Dec.* 24, 1845.

Case of Extra-Uterine Pregnancy.

By Prof. R. Watts, M. D.

Dr. Watts exhibited a vial containing the debris of an extra-uterine fœtus extracted by Dr. Stevens from the abdomen of a female, where it had remained for nine years. It was her only pregnancy. After having gone her full term, labor pains occurred but passed off without delivery, and she remained in good health up to 1839, when she had an attack of constipation, which was relieved by the introduction of the long tube; she then continued well up to six weeks ago, when she was attacked with a discharge of purulent matter from the rectum attended with

hectic fever and prostration. Extra-uterine pregnancy was then diagnosticated and the operation performed; the pregnancy was supposed to be tubal. A rather small opening was made in the linea semilunaris; the bones of the head separated and removed piecemeal, while the body was removed entire; a portion of the soft parts separated. The operation was performed on the preceding Saturday and patient has been doing well since.—*Feb.* 11, 1846.

Case of Scirrhus of the Uterus.

By Prof. A. Clark, M. D.

Dr. Clark presented a uterus from a woman, aged 46 years, which was entirely scirrhous; the whole body was a stony mass, the neck sunken and the ovaria both scirrhous. A cyst existed, containing clear fluid, formed in the ovary itself. On its surface were a number of pearly, opaque, glistening white bodies. The tubes were carried backwards and were adherent. There had been no symptoms of uterine difficulty.

The interest of the case lay, he said, less in the specimen than in the case itself. The patient had come to the clinique of the college, and had been attended at her home by a physician from thence. She had uneasiness of the abdomen, vomiting, and emaciation. A tumor existed in the abdomen, oblique from the right side of the spine and downward to the umbilicus. Firm pressure caused it to recede, and produced no pain. No opinion was expressed as to its nature, either by himself or Dr. Gilman, who had seen the patient. The pyloric orifice of the stomach was cancerous, and very much contracted. The disease disappeared in the middle of the stomach—the intestine beyond was healthy. There were no very well marked symptoms of scirrhus of the stomach. She had vomiting or gulping of bilious matter, scalding but not acid. She did not die of either scirrhus, for no ulceration existed, but of symptoms of chest disease. Three of her family had died of consumption. She had cough and hæmoptysis, and he had diagnozed tubercles, which were not examined post mortem. Her expectoration was copious and tenacious. She died of suffocation from secretion into the bronchi, and there was no doubt, from the physical signs, that the case was one of tubercle (of the lung) and not cancer. The scirrhus of the uterus had not commenced at the neck, for it was less affected, if any thing, than any other part.—*Feb.* 26, 1846.

Case of Carcinoma of the Stomach.

By Prof. W. Parker, M. D.

Dr. Parker exhibited a specimen of carcinoma of the stomach. The patient was a lady, 43 years old, married. Had been indisposed twelve years; the first attack dating from the sudden death of her son. She had pain in the abdomen generally. Five years ago a tumor was discovered, which was then supposed to be ovarian. Dr. Parker saw her first a year ago. She had none of the usual characteristic signs of cancer, as vomiting, pain, burning, etc. When last seen by Dr. P. there was a tumor on the left side, opposite the umbilicus, which was moveable, and cancer was diagnozed. Last summer she had severe dysentery, since which she has ate and drank well, and the bowels were free. Neverthe-

less, she emaciated and was œdematous and had enlarged lymphatic glands on one side of the neck. At times, strings of inspissated mucus (tubular) two or three feet long, passed the bowels. On a post-mortem examination, the disease occupied the whole pyloric orifice of the stomach, encroaching both on the duodenum and stomach, in extent about three inches square. The tumor was in a state of open ulceration. The other parts of the stomach were healthy. The external ganglia were enlarged and cancerous—one, the size of a walnut, was encysted. No other disease existed than a small perforating ulcer in the centre of the stomach. The patient died of emaciation from imperfect nutrition.—*April* 8, 1846.

Case of Calculus in the Bladder—Death from Exhaustion.

By W. H. Van Buren, M. D.

Dr. Van Buren related the particulars of the case of an old gentleman, of 72, who was attacked, five years ago, with retention of urine, of which he had frequent repetitions. He labored under calculus, which gave no trouble and of which no rational signs except frequent micturition existed. Finally, he had an attack of vomiting for 72 hours in succession, which nothing allayed, and he gradually sunk and died from serous effusion into the brain, with diseased heart and exhaustion.

The omentum adhered to the ilium and ascending colon. Recent grumous blood and pus escaped on raising it. The appendix vermiformis was ulcerated at three different points, and attached to the ilium. In the colon, two inches from the valve, was an ulcer $\frac{3}{4}$ of an inch in diameter, and a smaller one within it. Old false membrane on the inner surface of the colon. The mucous membrane of the bladder thickened. All the lobes of the prostate immensely enlarged. The peritoneal covering of the bladder very fat. A sacculus behind third lobe. Something very hard felt in third lobe of prostate. The prostate, posterior of the urethra, was not diminished in calibre. The ureter was very much dilated and the inferior infandibula very much enlarged. Pelvis of kidneys not. Substance of the kidneys partially absorbed.—*June* 24, 1846.

Case of Atlectasis.

By A. Sabine, M. D.

I——, aged 15 months, has been in the Colored Home for nearly 12 months. Has always been a remarkably delicate infant with hurried respiration.

P. M. Child emaciated; abdomen large. Child's chest very narrow and contracted, (pigeon breasted.) Heart enlarged, but not otherwise examined. Lungs on both sides have a curious appearance. More than one half the lung on either side is non-aerated, while the other portions are slightly emphysematous. The lobes and lobules affected are of a violet reddish color, depressed and covered by healthy pleura. On cutting into these portions it resembles a compressed lung; is very tough, not granular, and exuding from it a bloody unaerated fluid. Liver very large. Kidneys; one atrophied and encysted, the other greatly hypertrophied.—*Sept.* 23, 1846.

PART SECOND.

CRITICAL ANALYSIS.

ART. VIII.—*Ueber den Sitz und die Natur des Grauen Staares.* Von Dr. G. HOERING. Heilbronn. 1844.
On the Seat and Nature of Cataract. By Dr. G. HOERING.

THE ophthalmological literature of Germany is already greater than that of any other country, yet new works continue to swell the catalogue. The example of the eminent individuals who have conferred such honor on the German name, has doubtless contributed to direct the minds of their students to the cultivation of this branch of medical science; just as the auscultators of France have turned the attention of their followers to the diseases of the chest.

Hoering divides his subject into two parts. The first contains the pathology of the capsule, and the second that of the crystalline body.

In the capsule he recognises two layers. The external layer is composed of short white fibres crossing in all directions, and resembling other serous membranes, with the exception that the fibres of the serous lamina of the capsule are shorter, finer, and more compact. The inner layer of the capsule is composed of polygonal laminæ, each of which is provided with a nucleus, and resembles the epithelium of the mouth and vagina. From our own examinations we believe that the anterior capsule is composed of three laminæ, two of which invest the crystalline, and the third, or membrane of the aqueous humor, is reflected over their anterior convexity.

From the thinness of the capsule at the margin of the crystalline body, there arise two pathological conditions—separation of the capsules and indentation. In the former case, the portion corresponding to the margin is softened, and the connecting fibres are fragments of the lacerated capsule. Indentations or foldings of the capsule at the circumference of the crystalline occur when the latter is too small; the capsule, which is then too large, contracts at the circumference where it is thinnest—a condition which is frequently observed in tremulous cataract.

Capsulitis. The symptoms of capsulitis anterior are almost unobserved, except when its course is rapid. At the commencement there is a slight obscurity in the pupil, as if the posterior chamber were filled with

smoke, which is attracted toward the centre, and almost always settles there; yet there are cases where this want of transparency remains at a distance from it, and leaves a small space opposite the pupil for the passage of light. The obscurity is at first equal throughout, but being afterwards condensed in definite points, it thereby gives a cloudy appearance to the capsule, which becomes a little swollen, and nearer to the iris than in the normal condition. If the disease be not actively treated at its first appearance, in consequence of the effusion of coagulable lymph, certain portions of the capsule become white and projecting, as may be easily seen by observing the pupil in profile. Among these effusions are seen, here and there, blood-vessels, the arrangement of which the author regards as accidental, but not as a constant symptom, as stated by Walter, who maintains that the vessels of the anterior capsule form a vascular circle, the vessels of which run in arches, as in the knee or palm of the hand, and proceed to the centre of the capsule, where they form groups. Should their connection at some points appear to be interrupted, the vessels are nevertheless united by fine filaments, invisible to the naked eye. From obscurity of the capsule, vision in capsulitis is always indistinct. The disease is sometimes complicated with inflammation of the iris, of the retina, or of the sclerotica, and among these, iritis is the most frequent.

Synechia Posterior. Our author contradicts the general opinion that inflammation merely of the iris, and effusion of coagulable lymph from its surface is sufficient to produce synechia posterior. When lymph is effused on a circumscribed spot of the peritoneum, we meet with albuminous matter more or less organized in form, but we never find adhesions, unless an opposite surface of the peritoneum be likewise inflamed, and lymph effused from both portions—the surfaces of the iris and the capsule must, consequently, be both inflamed before adhesion can be effected. Three cases are quoted where iritis and capsulitis coëxisted, and attempts are made to confirm his views by describing experiments on animals. We do not think, however, that the simultaneous inflammation of both surfaces, and the experiments related, alter the generally received opinion, that synechia posterior may, at least sometimes, be produced by inflammation of the iris alone. In a case where the cornea had become partially opaque after bursting, and the distorted pupil was completely filled with coagulable lymph, to all appearance binding the iris to the capsule, we operated for artificial pupil, and contrary to expectation the lymph followed the retracting iris, and left the lens quite transparent.

Capsular Cataract. Opacity of the capsule may be divided into three classes. 1. Opacity of the anterior capsule. 2. Opacity of the posterior capsule; and, 3. Opacity of the entire capsule. Of these the most frequent is anterior capsular cataract, which is subdivided into, *a*, congenital; *b*, traumatic; and *c*, those cataracts which arise from inflammation of the capsule.

a. Congenital C. C. This cataract may be very easily confounded with that which appears at the same period after birth with ophthalmia neonatorum, and it is almost always associated with other congenital diseases, either of the eye, or other portions of the body; such as fissure or total want of the iris; hydrophthalmia; micropthalmia; hydrocephalus; club

foot, etc. The cases related show that scrofulous tubercles, sometimes rounded and sometimes of a pyramidal form, were deposited in or on the capsule. Opacity may also happen in another way. As in the early periods of fœtal life, the chambers of the eye are narrow, and the pupillary membrane touches the cornea on one side, and the capsule on the other, adhesion may occur between the membrane and the capsule. When some congenital cataracts have remained long in the eye, the lens is absorbed, and there is left behind only one membrane composed of the two capsules joined together. This species of opacity, called cataracta arida siliquata is very frequent.

b. Traumatic Anterior C. C. When we puncture the cornea of an animal, and introduce the instrument through the capsule to the external lamina of the lens, we observe as soon as the aqueous humor is removed, a pyramidal cloud the basis of which is directed to the capsule, and the apex to the wound of the cornea. If the wound of the capsule remain open, the substance of the lens presses between its margins and forms an elevation. In a few days there is no trace of the corneal wound, the pyramid becomes smaller and the wound of the capsule cicatrizes, leaving in its place a small spot which exists for some weeks. When the injury is more extensive, there are symptoms of inflammation of the membrane of the eye, and when examined, thickening of the capsule and effusion. The lens is always but little affected by wounds of the capsule alone, and it is very slowly obscured except in cases where the injury is violent. From numerous experiments on the vulnerability of the capsule, our author arrives at the following conclusions. 1. Wounds of the anterior capsules are very similar to wounds of the cornea; they have a tendency to heal by the first intention, but this is prevented by the substance of the lens pressing between their margins. When the wounds are made with a good cutting instrument, and the lens presents no obstacle, complete cicatrization follows. 2. In the nourishment of the crystalline, the anterior capsule performs a subordinate part. In this view, he agrees with Dieterich, who out of thirty-six cases of incised anterior capsule in rabbits, found obscurity of the crystalline in only a few of them. From experiments and from clinical cases where considerable injuries of the anterior capsule in man had very little influence on the transparency of the lens, it is inferred that the posterior capsule alone maintains the crystalline in its normal condition, and that the anterior capsule serves only to give exit to the superfluous fluid.

c. Anterior C. C. from Inflammation. Opacity of the anterior capsule may in this case be simple or complicated with adhesion; with separation of the pigmentum nigrum; with linear effusions; with staphlomatous enlargement; or with opacity of the lens. In appearance and distribution, capsular opacities vary as much as those of the lens. The capsule is sometimes scarcely obscured; in other cases the opaque spots are larger, more numerous or differently arranged. According to the form there are various definitions; as punctuated, arborescent, fenestrated, striped, &c. Some of the opaque spots may be compared to the pseudo-membranes found in serous cavities; and as in old cases, the latter are occasionally found tuberculated or ossified, the depositions on the capsule in cataracta trabecularis are either soft, almost cartilaginous, or even bony. By internal inflammation, the capsule may become thickened

and enlarged like the cornea in staphyloma, and form what is called cataracta pyramidalis or staphyloma of the capsule.

Posterior C. C. The posterior capsule is transparent at all the periods of life, with the exception of advanced age, when an obscurity is observed at the margin of the lens, in the form of a whitish ring about half a line broad, and very similar to the arcus senilis of the cornea. The opacity is not situated on the capsule, but in its tissue, and it often encloses a thinner ring which is less distinct and nearer the axis of the eye. This circulus senilis is sometimes found in the anterior capsule, sometimes in the substance of the lens, but it most frequently appears in the posterior capsule, and always accompanies the arcus senilis of the cornea, to which it corresponds in position; beginning like it, at the upper or lower portion and thence extending till it forms a complete ring. Inflammation of the posterior capsule may exist and may be followed by opacity. Our author quotes two cases where opacity was found on dissection, and remarks that he had several times observed it in the living, when it appeared to injure vision more than opacity of the anterior capsule.

All authors who have observed irideremia agree, that it is always associated with cataract. Dr. Gescheidt of this city, ascribes the opacity of the posterior capsule, in those eyes in which the iris is defective, to efforts of nature to obviate the photophobia and myopia which characterize this defect.

Obscurity of the entire capsule. In this case the walls of the capsule approach each other, and form an opaque partition which prevents the passage of light to the bottom of the eye. This partition most frequently exists as a thin membrane, which continues unchanged during life, yet it is sometimes accompanied with other diseased products; as pus, coagulable lymph, disorganized fragments of the lens, &c., with which it forms adhesions more or less firm, or becomes altered in structure.

As other diseases of the crystalline body, and false membranes in the pupil have been called membranous cataract, the term has caused some confusion. Membranous cataract is defined as a change of the entire lenticular apparatus into one membrane, by collapsing of the opaque walls of the capsule, after more or less complete absorption of the lens. This cataract sometimes exhibits other characters; it becomes tremulous or swimming, which happens in the following way: when the lens is absorbed, and both capsules form one membranous layer, the latter shrivels and becomes smaller. When at this period, the pupil is expanded by belladonna, we observe a white yellowish membrane, more remote from the pupil than anterior capsular cataracts. This membrane is spread out as a veil by means of white filaments which adhere to the ciliary processes, and which disappear as the membrane contracts, till at last there remain but few to maintain the cataract suspended. The name of tremulous cataract is derived from the agitation of the membrane on every motion of the eye. Should the filaments which keep the obstruction suspended, be ruptured, the opaque capsule swims in the aqueous humor, and is called cataracta natalis, which sooner or later disappears from the pupil by sinking or absorption.

Membranous cataract is frequently congenital; it is sometimes the consequence of convulsions in children newly born, or at their first teething. The formation of the opacity is ascribed to spasmodic con-

traction of the muscles, producing laceration of the capsule, and subsequent absorption of the lens. This opinion is supported by cases of individuals more advanced in which this cataract was formed in consequence of the effect of strychnine. Dr. Cunier observes that this medicine and veratrine have occasioned such violent spasms, that the capsule was lacerated and the lens forced even into the anterior chamber.

[Dr. Tully, of New-Haven, was the first to observe that the eyes of a presbyope could be accommodated to the vision of near objects when under the influence of strychnine. By spasm of the ciliary muscles contracting the vascular circle and preventing a free return of blood to the vasa vorticosa, the ciliary processes become erected in an unusual manner and draw forward the anterior wall of the canal of Petit, which can be demonstrated to be a continuation of the capsule. As the capsule encloses the lens, the entire crystalline body approaches the cornea when the former advances and the eye is adjusted to the vision of objects which are near. When this forced condition of the adjusting apparatus is maintained, the circulation in the capsule is affected, and opacity may be the result. Too much power is generally ascribed to the diminutive artery of the vitreous humor, which in our opinion performs but a trifling part of the duties ascribed to it. The nutrition of both capsules, as well as of the greater part of the vitreous humor, the membranes of which radiate from the canal of Petit, is affected by vessels from the ciliary body. That powerful spasm of the external muscles may lacerate the capsule, is not denied, but the formation of cataract by compression of the vessels is a more rational explanation.]

The most frequently occurring membranous cataracts are indisputably those which are the result of depression of the lens. Among the unfavorable accidents which happen after this operation, they are fortunately the least to be feared.

Ossification and Lithification of the Capsule.—What is called ossification of the lenticular system may be divided into three classes; 1, into cases of the capsule alone; 2, into those of the capsule and lens; and 3, into those of the lens alone. As authors do not agree that the morbid formation is a real osseous metamorphosis, it is supposed that calculus of the tissue has been mistaken for genuine bony deposit.

True ossification occurs only in normal or accidental cartilages. It is most frequently observed in the cartilages of the larynx or ribs of aged individuals, yet it is sometimes met with in the cartilages which are accidentally formed in the muscles and membranes of the young. These products exhibit under the microscope the characteristics of true bony tissue, and when treated with hydrochloric acid leave a cartilaginous mass, analogous to that which we obtain from the bones of a skeleton.

Lithified tissue is very different from that which is ossified. Instead of the fibrous structure of bone, we observe under the microscope an irregular granular appearance. When calculous matter is treated with hydrochloric acid, a large quantity of gas is evolved, and the residuum is not cartilaginous, but a slimy sediment.

Calculous are more frequent than osseous changes; they apparently arise from fluid surcharged with calcareous matter which is precipitated in the meshes of the tissue, and the latter disappear in proportion to the accumulation. Under the microscope we recognise the primitive elements

of the tissue, but instead of the usual constituents we find a calcareous mass. In a hardened nerve which was examined by Remak, the primitive nervous fibres, covered by neurilema as in the normal condition, were distinctly observed under the microscope. This morbid change appears to be affected in the same manner as the petrifaction of plants: it is found most frequently in the middle coat of the arteries, in the glands of Pacchioni, in the thyroid gland, and in the fibrous tumors of old people.

Cases of calculus, very similar to those related, consist merely of a deposit in the spaces of organs; as the concretions found between the retina and choroid. These irregular masses usually exhibit the print of the neighboring organs; sometimes they resemble bone; sometimes a calculous mass; and from the difference in appearance has probably originated the different opinions concerning their character and etiology.

SECOND DIVISION.—DISEASES OF THE CRYSTALLINE.

It is generally conceded that the crystalline lens consists of concentric laminæ, which are composed of fibres lying parallel to each other. Under the microscope these fibres appear as little bands, with two surfaces and two lateral margins. The outer surface is turned toward the capsule, the inner one towards the nucleus, and the lateral margins, which are the means of union to the neighboring bands, are usually smooth, but in lizards, frogs and certain fishes, they are toothed or dove-tailed in a manner somewhat resembling the sutures of the skull. [The discovery of toothed margins in the lenticular fibres of the cod, by Sir D. Brewster, led to the opinion that the fibres of the crystalline in all other animals were formed on the same model, but modern researches have shown that this is not the case.]

As there is some doubt about the existence of the liquor Morgagni, the following remarks of the author on this point are interesting.

Often repeated researches on this subject have convinced us that there is between the lens and the capsule a mucous lamina, which under the microscope presents an appearance different from that of the capsule and the lens. This lamina is composed of small globules which resemble the globules on mucous surfaces, but they are less numerous and contained in a fluid, the quantity of which varies. In recently-killed animals it is very small, whereas in those which have been some hours dead it is often considerable; we may consequently suppose that the fluid is increased after death by endosmosis of the capsule. Each globule is composed of four or five nuclei which lie more or less regularly near each other.

Softening of the Lens.—This affection is very frequent. Out of a hundred cataracts observed in Vienna, at the clinique of Professor Jager, etc., eighty-four belonged to this class.

In softening of the lens, the substance of the organ is changed to a yielding mass, which, in proportion to its more or less complete destruction, presents innumerable varieties.

Of softening there are three grand varieties, each of which contains a number of gradations. In the first the lens is changed to a soft disorganized mass, in which the fragments of the fibres may be still recognised by the microscope. In the second the lens is dissolved; and in the third are included those cases where the surface of the lens only is softened,

but the nucleus is changed into a mass denser than in the natural condition.

It is generally believed that softening begins at the surface of the lens and gradually advances to the centre, but it appears there are exceptions to the rule, as cases of central softening are mentioned by Morgagni and Guepin. More exact observations are wanting to prove the reality of the latter statement.

Softening depends on disorganization of the elementary fibres, apparently produced by abnormal influence of the fluid of Morgagni. The fibres are broken in pieces, and are so separated from each other that they form a heterogeneous mass of fragments mixed in a fluid. The lens then loses its transparency, just as glass becomes opaque when pulverized.

As the lens becomes softened, it is sometimes divided into two or three fragments, by radiating fissures arising from separation of the fibres at their terminations. From these divisions proceed other fissures, which are occasioned by separation of the fibres from each other, and which give to the lens a stellated appearance. The transverse divisions of the fibres form another variety of fissure.

Fluid Cataract. This variety is distinguished from that just described, only by farther progress of the softening of the lens. Here, too, the disorganization begins at the surface of the organ, and ends with its entire solution. When this cataract commences, the fluid of Morgagni is perfectly clear, and its augmentation escapes the eye; but when the substance of the lens begins to dissolve, it becomes opaque, of a dirty whitish, greyish, yellowish, or greenish color, more or less resembling pus. As the solution progresses the lens diminishes at the circumference; it becomes opaque, and soon consists of a small hard nucleus, which swims in the opaque fluid, and is finally dissolved. As the mass arising from this solution of the lens sometimes resembles milk or pus, we have the terms of milky or purulent cataract. When fluid cataracts are completely formed, they are called cystic or vesicular, and the condition is recognised by a peculiar tremulousness of the capsule, which is communicated to this membrane by every motion of the eye, or of the head. By pressure of the enlarged lens, the iris is pressed forward and becomes convex. By bursting of the capsule or absorption of the fluid which it contains, a membranous cataract is formed.

When the fluid of Morgagni begins to affect the lens, there are separated from the latter whitish flakes, which swim in the fluid, and in proportion to their quantity render it opaque. If the number is not great they fall to the bottom of the capsule, and form an appearance similar to hypopium when the eye is in repose; but at the moment the head or the eye is moved, the flakes ascend and obscure the pupil. This condition occurs when the solution of the lens progresses slowly, and is but seldom witnessed. Most frequently there is observed through the pupil a dense veil, which prevents the solution of the lens from being observed.

Instead of simple liquefaction of the lens, we sometimes find a complete decomposition of its elements; we also sometimes find new formations, the most remarkable of which are two kinds of entozoa. Of these the dystoma, so well described by Dr. Gescheidt in his celebrated essay in Ammon's Journal, occurs more frequently than the other, which was discovered by Nordmann, and called by him "filaria oculi humani."

When the mass, of which the soft or fluid cataract consists, remains long in the capsule it may be partially absorbed, and what remains be converted into an adhesive, cheesy substance, which often acquires considerable firmness, and adheres to the capsule.

The very disagreeable smell which certain cataracts diffuse after extraction, sufficiently proves an alteration in chemical composition.

Semi-hard Cataract. This cataract, which consists of a hardened nucleus and softened cortical lamina, presents numerous varieties, according to the prevalence of one or other of these conditions. It is called semi-hard when hardening prevails, and semi-soft when softening predominates, yet there are so many medium degrees that we can only distinguish them by observation, as it is impossible to define them all by expression.

Hard Cataract. In hard cataracts, with very few exceptions, the disease begins at the nucleus of the lens. When observed at the commencement, the lens is turbid at the centre but transparent at the circumference, and the obscurity gradually proceeds from the centre to the circumference as the disease advances. When completely formed, the lens is quite opaque, but the opacity is always greatest at the centre. When at its commencement we remove a hard cataract from the eye we see that it is yellow in the centre, but we cannot again discover the opacity we observed in the lens when still in the eye. This phenomenon may be explained by the difference of refraction within and without the eye. When the cataract is laid over a black ground, and carefully shaded so that the light may fall on it only from before, the opacity is again observed as previous to its removal. When hard cataract is still more advanced, the nucleus is yellower, yet it remains transparent; when completely formed the nucleus is orange-yellow and not altogether opaque.

Softening or hardening of the lens seldom occurs alone, but the conditions are usually united. When the crystalline lens is changed at the centre it is for the most part also disorganized at the surface, either at the same time or subsequently.

It has been already said that softening of the lens depends on the secretion of the fluid of Morgagni separated by endosmosis from the aqueous humor which may contain foreign ingredients, as coloring matter or calcareous salts. In this manner we may explain black, red, green, calculous or bony cataracts, and other dieased products for which we cannot otherwise account.

We have thus condensed into our own language Hoering's essay on the pathology of cataract, which evinces much experimental and literary research. It is much to be regretted that one so able did not complete the subject by explaining the treatment.

The cure of cataract without operation has been brought forward again and again. Tartar emetic ointment, blisters, ammoniacal paste and lotions, prussic acid, iodide of potassium, mercury, galvanism, etc., have been recommended in turns, but they have all failed to be of the least service in the hands of honorable practitioners.

Of the mechanical means for removing the obstruction to the passage of light, extraction offers many advantages, yet it cannot be denied that so severe an operation is unnecessary in a case of soft cataract, and that even in experienced hands it is liable to many unforeseen occurrences.

From the instructions for depression in some modern works, it would be difficult to arrive at correct statistical information on the comparative success of the two operations, as it would be unfair to contrast an operation well executed in one manner, with one improperly performed in another. In all operations by the needle, the operator should be more emphatically reminded of the relative anatomy of the parts than is general. He should be reminded that the membranes of the vitreous humor radiate from the ciliary body to the centre of the globe, consequently those at the lower portion of the eye pass upward and backward. These membranes in different subjects vary in density, and the fluid displaced from their cells by a dislocated lens, will, when regenerated, tend to force the latter upward and forward. Should the lens not resume its former position, the chances are that a portion of its circumference will press upon the iris or ciliary body, and give rise to inflammation of an excruciating character. The direction and consistence of these membranes may be so easily ascertained by freezing an eye which has been immersed for a day or two in alcohol to coagulate them, and cutting it across, that it is singular that correct delineations of the cells are not given in the works which even last year emanated from the press. Whosoever will study the arrangement of the hyaloid membranes will perceive the difficulty of maintaining the opaque body out of the axis of vision by the operation of reclination. The laceration of the posterior capsule before depression, as recommended by Professor Mackenzie, and the formation of a resting place for it by division of the lower hyaloid membranes, will increase the chances of success.

The sensitive nerves of the globe are almost all distributed on the iris and ciliary body, and these structures cannot be injured with impunity; yet it is astonishing what they will bear; as we sometimes see the lens by depression made to ride on them, perhaps after having been made to perform a somerset. An inexperienced operator may treat the iris as if it were not endowed with vitality, but a few unsuccessful operations, especially if he fall into the hands of the Philistines, will show him his error. After it is evident to all that total darkness may be expected, he is obliged, day after day, to bear with the agonies of the patient. The loss of the fee is in this case no consideration. His resolution must be put on the stretch when he arrives at the door, and there is no escape from the peevishness and frowns of the household which he knows will be repeated.

If the patient is in humble circumstances the surgeon may anticipate a parade of his failure at an infirmary or at the chambers of a quack.

In the plan for depression by puncturing the membranes with a lancet and removing the cataract from the axis of vision by a stilet, as recommended by Desmarres, and in that by opening the cornea and depressing with a button-shaped instrument as proposed by Tavignot; the dangers are so apparent that it is unnecessary to make any comment on the operation.

Unquestionably the safest mode of operating for a soft cataract is division through the cornea, provided the patient has perseverence enough, and we are careful neither to dislocate the lens nor to make too large an opening in the capsule. A fine sewing-needle will in most cases be the best instrument, but if the cataract possess considerable tenacity, a lance-pointed cataract-needle will be more effective. An instrument that

will completely fill the puncture as it advances should be preferred, as we have seen an eye destroyed from the evacuation of the aqueous humor and consequent pressure of the lens on the iris by the chisel of Hey. From the length of time and the number of operations necessary to get rid of a hard cataract in this way, it is probable that the patience of both patient and surgeon would be exhausted before the obstruction would be removed. W. C. W.

ART. VIII.—*The Transactions of the American Medical Association, Instituted* 1847. Vol. I. Philadelphia: published by the Association. Pp. 403.

[It was intended that there should also appear in this number of the Journal analyses of the reports on "Practical Medicine," and "Medical Literature," contained in the above Transactions, but owing to the pressing engagements of the gentleman to whom the former was assigned, it is necessarily deferred for the present. Owing to the severe illness of the editor the review of the latter report was not finished in time for the printer. Both these reviews will appear in our next.—*Ed. N. Y. Jour. Med.*]

BY the Regulations of the American Medical Association the standing Committee on Surgery is required to "prepare an annual report on all the important improvements, in the management of surgical diseases, effected in America during the year." In the preparation of their first report, the document before us, the Committee have labored under the disadvantages incident to every novel enterprise, and especially the difficulty of eliciting from individuals in every quarter of our extensive territory such original data as would come legitimately within their scope. They justly regret that their "circular letter soliciting information, &c.," was not more generally honored, and express the hope, in which we cordially unite, that the Surgical Report of the Association may in future be made the repository of the improvements in, and practical results of, American surgery. There will be no lack of appropriate materials when the attention of the profession shall have been sufficiently excited to the object, and we opine that, in future reports, the Committee will experience more difficulty in selecting and condensing than in obtaining matter. The present report contains, nevertheless, a number of interesting facts and results, plainly and concisely stated, which we shall proceed to notice in detail, inasmuch as they are, most of them, not to be met with elsewhere. A large share of the attention of the Committee has been engrossed by the all-absorbing subject of "anæsthetic agents;" this topic will be more appropriately considered in a separate article.

The Committee recognise, with much justness, as evidence of sound and substantial progress in the *science* of surgery the increasing disposition to determine by statistical results the actual value of operative procedures, and different methods of treatment of surgical diseases. The application of statistics to medicine is one of the great features in our science of the present day, and this method of investigation, which promises such desirable results, can only be successfully pursued on a large scale, by means of an extensive organization such as that whose

labors have thus commenced. The subjects of fractures and luxations, of amputations, of operations for stone, aneurism, cancer, hernia and cataract, are specified in the report as particularly worthy of statistical investigation, and in pursuit of the proposed plan, 407 cases of lithotomy are recorded, with their results, obtained from the practice of Prof. Dudley, of Transylvania University, from communications received from Drs. March, of Albany, Mettaner, of Virginia, John C. Warren, of Boston, Eve, of Georgia, and Mussey, of Cincinnati, and from a tabular statement including all the cases operated upon in the Pennsylvania Hospital since the foundation of that charity. Of these 407 cases, 22 were unsuccessful, making an average mortality of 5.02 per cent., a result which compares very favorably with that obtained by Mr. Crosse, of Norwich, whose tabular statements, comprising 704 cases, derived from the records of the Norfolk and Norwich hospital, shows a mortality of 13.21 per cent.

The death of one of their members, Dr. Randolph, of Philadelphia, so well known as a successful lithotritist, deprived the committee of an elaborate contribution on the crushing operation for stone.

The subject of the treatment of aneurism by compression is introduced by a resumé of the circumstances connected with its history and successful reïntroduction, and concluded by a detail of five cases of recent occurrence in our own country, furnished by the operators, for the report, which are well worthy of reproduction:

These cases have been treated by Drs. Buck, Rodgers and Watson, of New-York, Knight, of New Haven, and Mütter of Philadelphia.

The first case was one of femoral aneurism, in which pressure was fairly tried and did not succeed, and it became necessary at last to resort to the operation by ligature.

The instance which occurred to Dr. Rodgers was that of a negro seaman, aged 47, who, two months before, observed a swelling in the popliteal region, which arose after a fall. The tumor was of the size of a duck's egg, and the symptoms of aneurism were well marked. He entered the New-York Hospital, and on the 15th of January, 1847, pressure was made upon the artery near the groin by means of an arterial compressor. This was continued till the 12th of February, but it being found impossible to affect the desired object with it, Dr. Rodgers substituted another, consisting essentially of a metallic plate placed upon the inner side of the thigh over the vessel, having three holes at short intervals through which screws passed, each having at one of their extremities a firm pad, and at the other a projection to which a key was adapted, by means of which pressure could be made upon the femoral artery at the different points. This metallic plate was secured over the artery by means of broad straps attached to a sliding plate of steel, secured in a metallic bar, applied longitudinally to the back of the limb.

Soon after the adjustment of this instrument, it was ascertained that the patient loosened the screw in the absence of his attendant. He was now watched night and day for three days, by the end of which time all pulsation in the tumor was entirely arrested. The swelling gradually subsided to half its original size. The only inconvenience experienced by the patient was a numbness of the limb upon the first removal of the instrument, but this soon left him, and he was discharged cured on the 13th of April.

The case of Dr. Watson was one of femoral aneurism, treated also at the New-York Hospital. The subject of it was an intemperate Irish woman, aged 38. The tumor, which was hard and painful to the touch, had existed for a month, and extended from the upper and inner third of the thigh to within a finger's breadth of the internal condyle of the femur, and at the point of its greatest

circumference, reached from the inner border of the rectus muscle to the middle of the outer side of the thigh.

At midday, on the 23d of September, 1847, pressure was made by means of two pads secured to circular straps over the artery, with counter compresses on the outer side of the thigh, the pressure produced being regulated by a screw which acted directly upon the pads over the vessel. The first compress was fastened over the artery just as it emerges from beneath Poupart's ligament, the second a short distance below it, and both were so arranged as partially to control the circulation in the tumor, the pressure being regulated by alternately tightening one compress and slackening the other, in order to prevent abrasion of the integument. On the 24th the patient was restless; on the 25th she complained greatly of cramp and pain in the leg, which was much swollen, to relieve which a roller was applied, and the limb elevated on a pillow.

By the 26th all pulsation had left the tumor. The upper compress was now removed—sixty-eight hours having elapsed from its first application, and very slight pressure was kept up by means of the lower one. No return of pulsation follo ved the removal of the compress, and in an hour afterwards the lower pad was also taken away. The skin beneath the upper compress had become somewhat abraded by the pressure, which required the application of a poultice, and subsequently simple dressings for a few days.

On the 28th no pulsation could be detected in the tumor, or in the femoral artery below the point, upon which the upper pad had rested.

By the 28th of October the tumor had much diminished in size, and become softer.

On the 12th of November, nearly two months subsequent to the commencement of the treatment, she left the hospital well, the tumor still gradually becoming smaller. There was no pulsation to be detected in the anterior or posterior tibial arteries, or at any point below the giving off of the profunda, and the femoral artery itself below that point was felt like a solid cord beneath the integument.

The case furnished by Dr. Mütter, was that of a book-keeper, aged 41, whose general health was feeble, and who, six weeks previous to the 24th of September, 1847, had been seized with stiffness in the right ham, which was soon followed by a pulsating tumor of the size of a turkey's egg. After a few day's rest in the horizontal position, his treatment was commenced by applying a roller to the limb in order to prevent swelling, and the application of one of Charrière's compressors, with a small oval pad over the femoral vessel where it passes down to become popliteal, and another similar compressor with a larger pad over the artery at the upper third of the thigh. The limb was then placed upon an inclined plane. After remaining in this position for twelve hours, the lower compressor was tightened until all pulsation ceased in the tumor. The pain produced by this procedure was severe, and could only be borne at first for half an hour. When it became insupportable, the upper compressor was screwed down, and the pressure from the lower removed. The patient supported the pressure above for two hours without much difficulty; it then became annoying, and in order to relieve the suffering, the lower compressor was again tightened.

By thus alternating the points to which it was applied, the necessary amount of pressure was kept up without excoriation, or any other injurious consequence resulting, and from the peculiar construction of the instruments, and the previous application of the roller, the swelling of the limb was trifling. During the treatment, the diet of the patient was restricted, and digitalis was administered to him.

By the 12th day the tumor was reduced to about half its original size; had become solid, and was free from pulsation. Notwithstanding these circumstances, Dr. Mütter did not consider it safe to allow his patient to move about, or even to relax the treatment, but continued to pursue the same course, with

slight modifications, for six weeks longer. At the expiration of this period, the tumor had nearly disappeared, the collateral circulation was fully established, and the disease radically cured.

Dr. Knight's case, which is peculiarly interesting, from the novel manner in which the pressure was made, and quickly effected a cure, was that of a mulatto man, aged 48, in whom a popliteal aneurism had existed for several months. The aneurismal tumor, which was well marked, filled up the whole popliteal space. The leg was very painful and œdematous. After the œdema was removed by rest, and other appropriate treatment, pressure on the artery, by means of the hoop tourniquet, the calliper-shaped instrument, the common tourniquet, guarding the limb against pressure of the strap by encasing it with thick sole-leather, and by a variety of other mechanical contrivances, was fairly tried. By whatever instrument, however, the pressure was made, and however carefully it was guarded, whether continued on one point only, or shifted from one part of the artery to another, the pain became in a short time so severe that it could not be endured. The pain complained of was not in the part pressed upon by the instruments, but was felt equally in the thigh and below the knee, and occurred whether the limb was left uncovered or was enveloped in a roller. It usually began in twenty-five or thirty minutes after the pressure was made, and became intolerable in fifteen or twenty minutes longer, and could be continued in no instance beyond one hour. These efforts were persisted in for eight or ten days, and as nothing had been gained at the end of that time, were abandoned. Before resorting, says Dr. Knight, to the ligature of the artery, I concluded, with the concurrence of his physician, Dr. Tyler, to try manual pressure upon the vessel. "To accomplish this, a sufficient number of assistants were procured from the members of the medical class, who cheerfully offered their services. They were divided into relays, two keeping up the pressure for five or six hours, relieving each other every hour or half hour, and these succeeded by two others. Sufficient pressure to arrest the pulsation in the tumor was found to be most easily made with the thumb or fingers, without a compress, upon the artery as it passes over the os pubis, and the direction given to the assistants was to keep up this amount of pressure as nearly continuously as possible." This treatment was commenced at 3 o'clock, P. M. No pain of consequence was produced by it for five or six hours, and then it was not severe, and was quieted by the eighth of a grain of morphia once or twice repeated. About eight hours after the pressure was applied, the temperature of the limb was diminished, and it appeared shrunken in size. Upon removing the pressure from the artery at 11 o'clock of the following day—twenty hours from the commencement of the treatment, the tumor was found to have diminished very little, if at all, and pulsated as strongly as before; but the tibial arteries could not be felt. The treatment was continued. Upon examining the parts the next morning, forty hours after the treatment was begun, the tumor was found to be nearly one-third less in size, firm and unyielding on pressure, and entirely without pulsation. All treatment was then discontinued. The femoral artery pulsated with its usual strength in the groin, and distinctly as far as its passage through the tendon of the adductor muscles. Between this point and the tumor it could not be felt. Several of the anastomozing arteries, especially one upon the inside of the limb, could be distinctly traced passing over the knee, pulsating strongly, and enlarged in size. From that time to the present—a period of more than four months—no change has taken place in the limb, except that the tumor has gradually diminished, so as now to be scarcely discoverable, and that the leg, which was at first cold and weak, has nearly regained its natural temperature and strength.

In connexion with the ligature of large arteries, the recent operation upon the primitive iliac, by Dr. Lyons, of England, is noticed as making

the eighteenth instance in which this artery has been tied, of which eight have proved successful. The patient of Dr. Mott, of New-York, upon whom this operation was first successfully performed, in 1827, is still living. The result of the last case in which this artery was tied in this country—by Dr. Peace, at the Pennsylvania Hospital, in August, 1842—has been furnished to the committee by the operator. The tumor reäppeared fifteen months after the operation, the patient, meanwhile, having been occupied in a laborious employment, and enjoying good health. On his reädmission into the hospital, it was found to be "soft, fluctuating, and of the volume of a small orange, with the integuments covering it discolored. In a few days ulceration took place, and he died, after repeated hemorrhages." Pressure upon the aorta did not arrest the flow of blood.

A singularly interesting case of obliteration of the thoracic aorta, detailed by Dr. West, in the *Transactions* of the Philadelphia College of Physicians, for February, 1848, is noticed as affording additional evidence of the ability of the collateral vessels to carry on the circulation under these circumstances. The epigastric and internal mammary arteries were found to be as large as the internal iliacs, and the circulation above and below the aortic stricture was mainly carried on by their inosculation.

The remainder of the Report is occupied by an abstract of the facts contained in the answers to their circular letter, received by the committee. Dr. March, of Albany, has cured hydrocele radically, in a number of instances, by drawing off the fluid with a large-sized round trocar, and introducing through its canula a camel's-hair pencil dipped into a solution of iodide of potassium, with which the surface of the cavity is to be thoroughly painted.

Dr. Horner, of Philadelphia, finds that no injection is to be wholly relied upon in radically curing hydrocele, and prefers passing a few threads of silk through the tunica vaginalis from top to bottom, even where the cavity is injected, by which the serum is carried off as fast as secreted, and the sides of the cavity, remaining thus in contact, more readily adhere.

Dr. Brainard, of Chicago, has found a solution of ℥ij. of alum, and ℥j. of sulphate of copper to a pint of water, useful as an injection into extensively suppurating cavities; and has also proved by trial that the injection of a solution of iodine into the cavity of a spina bifida is attended with but little danger, and may cure the disease.

Dr. John C. Warren, of Boston, has abandoned the ordinary treatment of fracture of the condyles of the os humeri, as calculated to induce loss of motion of the joint. He discards splints entirely, and after the early inflammation has subsided, commences and persists in the daily use of passive motion, employing etherization, in order to render the treatment bearable. By the aid of the ether "he has restored the motion of a considerable number of anchylozed elbows, and has successfully applied the same measures to other joints, particularly the shoulder and knee."

Dr. Mettauer, of Virginia, has reported to the committee two cases in which death followed ligature of the common carotid artery, from interference with the functions of the brain. Hemiplegia and other cerebral symptoms occurred. We regret that the details of these cases are not given in full, as there is no subject in connexion with the ligature of large

arteries, on which authentic data are more to be desired. The results of the investigations of Mr. Crisp, in his recent work on the "*Diseases and Injuries of the Blood-vessels*," (Lond., 1847,) do not coincide with those of Dr. Norman Chevers, as recorded in the London Med. Gaz., Oct. 1845, who first called the attention of the profession to this subject. The researches of Mr. Crisp lead him to conclude that injury to the brain is less to be apprehended than the opinions of Dr. Chevers would lead us to suppose. An interesting case recently occurred at Bellevue Hospital, in which a ligature was applied to the primitive carotid in the hope of retarding the growth of a very vascular encephaloid tumor of the nasal cavities. Partial coma with hemiplegia of the opposite side occurred within 48 hours after the operation, followed by death on the 4th day. The details of this case will be given in the proceedings of the New-York Pathological Society in a future number of this Journal.

The appendix to the report of the committee on Practical Medicine, contains an excellent practical paper by Dr. Gurdon Buck, jun., of New-York, on a novel surgical resource in the treatment of œdematous laryngitis, first employed by him in the New-York Hospital, in 1847. It appears from the researches of the author, that scarification of the engorged parts in œdematous inflammation of the larynx, from swallowing scalding water, was first proposed by Marshall Hall, in 1821, and afterwards, in 1823, by Lisfranc, in a paper on œdematous laryngitis, who cites six cases in which it was actually performed, five of which terminated successfully. Without any knowledge that the proposition of Marshall Hall had been actually reduced to practice, Dr. Buck had convinced himself of its utility, and on the occurrence of the disease during the typhus epidemic of the past year he carried it into execution, by means of instruments invented for the purpose, with the result of saving more than one life by the operation. The following case, selected from five reported in the paper, will convey an idea of the practice pursued.

Case IV. was a patient of Dr. Swett in medical ward No. 9, North House, New-York Hospital, named James Rourke, aged 27 years, born in Ireland. On Tuesday, February 28th, 1848, at 2½ o'clock, P. M., was suffering with well marked symptoms of œdematous laryngitis, that had supervened in the progress of typhus fever at about the end of the third week. An abundant petechial eruption, great prostration, subsultus tendinum, and extensive bronchitis had characterized the fever. A supporting and stimulating plan of treatment had been pursued, and a large blister had been applied over the chest within a day or two, for the relief of the bronchitis. Patient was also taking Stokes' expectorant. When seen, his breathing, especially during inspiration, was difficult and sonorous, and his voice hoarse.

There was some soreness of the throat with a copious expectoration of viscid mucus.

The velum and fauces were of a deep red color, clean and free from swelling or exudation upon their surface. With the finger, the edge of the epiglottis was felt thickened, swollen and pulpy, by Dr. Swett, as well as myself. The glosso-epiglottic frænum and pouches on either side were not swollen.

I scarified the edges of the glottis and the epiglottis, two or three times at a few moments' interval, which was followed by slight hemorrhage, and from which patient admitted that he felt some relief, though from the confused state of his intellect incident to the fever, his own testimony was considered doubtful.

Some difficulty was experienced in the operation from the involuntary closing of the jaws as if by a movement of subsultus, by which the left fore-

finger was compressed between the teeth. The instrument used was the curved knife. On the following day, patient was found to have passed the night comfortably and was no worse, the hoarseness and dyspnœa were about the same; no paroxysms of suffocation had as yet supervened. Stokes' expectorant and stimulants were continued.

Second day, 4 o'clock, P. M.—Patient is decidedly worse, dyspnœa very much increased, paroxysms of suffocation and choking have now supervened, and are excited by attempts to swallow and on falling asleep, during which the face and lips become livid. The pulse is 80, full and quick, the skin warm and dry, the tongue brown and dry, and the throat clogged with viscid mucus; the epiglottis is felt to be much more swollen. I repeated the scarification very freely, taking the precaution to insert a piece of wood between the molar teeth on the left side, to protect my finger. More hemorrhage followed the scarifications than in any previous operation. At least one ounce of florid blood was hawked up, mixed with mucus, and patient expressed himself very much relieved. After this there was no recurrence of paroxysms.

Third day.—The case is going on favorably, respiration is decidedly easier, the pulse is good and 80 per minute.

Fourth day.—The improvement continues, the tongue has become white and moist, and the temperature of the surface more moderate. The epiglottis has nearly resumed its natural condition. Stokes' expectorant has been continued and the blistered surface kept sore. In a few days after, the voice recovered its natural tone, and the patient began to leave his bed. He was discharged, March 30th, cured.

In case V., of a more aggravated character and farther advanced, the scarifications alone were not relied upon, but the additional chance of tracheotomy was given to the patient with the happiest result. The patient was able to respire naturally through the larynx on the second day after the operation, and on the third day the trachea tube was left out altogether. In less than a month he was discharged cured.

The instruments employed are a knife with a curved handle, similarly shaped to the whalebone and sponge used for the application of nitrate of silver to the larynx, and having an extremity like an ordinary gum-lancet, with its cutting edge at right-angles with the shaft; also a pair of "scissors, curved flatwise for snipping the edges of the epiglottis, and swollen pouches on its lingual surface." Much stress is laid upon the importance of an accurate diagnosis of the disease, and the swelling of the epiglottis, as ascertained by the touch, is insisted upon as a sign which is strictly pathognomonic, and one which does not appear to have been sufficiently appreciated. The condition of the morbid parts is illustrated by several colored plates. We shall conclude our notice of his paper, which is in every respect highly creditable to its author, by his description of the method of performing the operation.

The patient being seated on a chair, with his head thrown back, and supported by an assistant, he is directed to keep his mouth as wide open as possible; and if there be any difficulty in this respect, a piece of wood an inch and a quarter in width, and half an inch in thickness, is to be placed edgewise between the molar teeth of the left side. The forefinger of the left hand is then to be introduced at the right angle of the mouth, and passed down over the tongue till it encounters the epiglottis.

But little difficulty is generally experienced in carrying the end of the finger above and behind the epiglottis so as to overlap it and press it forwards towards the base of the tongue. In some individuals the finger may be made to overlap the epiglottis to the extent of three-fourths of an inch.

Thus placed the finger serves as a sure guide to the instrument to be used. The knife is then to be conducted with its concavity directed downwards, along the finger till its point reaches the finger-nail. By elevating the handle so as to depress the blade an inch to an inch and a half farther, the cutting extremity is placed in the glottis between its edges; at this stage of the operation the knife is to be slightly rotated to one side and the other, giving it a cutting motion in the act of withdrawing it. This may be repeated without removing the finger, two or three times on either side. The margin of the epiglottis, and the swelling between it and the base of the tongue may be scarified still more easily with the same instrument, or scissors curved flatwise may be employed for these parts, guided in the same manner as the knife.

Though a disagreeable sense of suffocation and choking is caused by the operation, the patient soon recovers from it, and submits to a repetition after a short interval. In every instance the operation has been performed twice, and in some three times.

Before proceeding to the operation, it has always been explained to the patient, that the seat of his difficulty was a swelling at the top of the windpipe, preventing the air from entering, and the object of the operation was to cut it and let out fluid, and thus give him relief. This explanation corresponds so exactly with his own sensations, which refer to the top of the thyroid cartilage as the seat of obstruction, that he readily submits to the proposed operation, and renders all the coöperation in his power for its performance.

A slight hemorrhage follows the scarifications, and should be encouraged by gargling with warm water. In one instance the quantity of blood mixed with sputa amounted to half a wineglassful.

W. H. V. B.

Anæsthetic Agents.

The committee to which was entrusted the Report on Surgery, at the last meeting of the association, have, with commendable zeal and industry, devoted much time and a considerable share of their paper to the consideration of anæsthesia, in surgical practice. The advocates and opponents of ether and chloroform have furnished the medical public with a vast amount of reading matter, within the last two years—at first, occasionally, allowing themselves to be betrayed into the injurious asperities of partisan warfare, but, of late, manifesting a disposition to strive, more for the good of science and humanity, than to sustain their own favorite ideas, or preconceptions. The mass of testimony, now accumulated, we think, may be fairly regarded as amply sufficient to justify the formation of individual opinion, and to settle several points which for some time were matters of doubt and uncertainty.

The committee have considered, briefly, the history of the introduction of ether into surgical practice. With this point, however, our readers, both as Americans and as medical men, are so familiar, that we shall only detain them with a recapitulation of Dr. Warren's operations at the Massachusetts General Hospital.

On the tenth of October, 1846, Dr. W. removed a tumor from the neck of a young man, whilst under the influence of sulphuric ether. On the 17th of October, Dr. George Hayward removed a fatty tumor from the arm of a hospital patient. Hitherto, the so-called "Letheon" had been used; but as this was a secret remedy, the surgeons very pro-

perly refused to proceed further in their experiments, unless the nature of the anæsthetic agent was fully revealed. Dr. Morton having made known that sulphuric ether was the article used, an amputation of the thigh, for diseased knee-joint, was performed on the 7th of Nov., 1846, by Dr. George Hayward. The results, in the foregoing cases were considered so satisfactory, that—

From this time the inhalation of ether was adopted in the practice of the Massachusetts General Hospital, and received the warm approval of the Board of Surgeons attached to that excellent institution.

Dr. Henry Bigelow's paper read before the American Academy of Arts and Sciences, on the 3d November, was published in the Boston Medical and Surgical Journal of the 18th, and was the first means whereby the discovery was made known to the world.

Within six weeks of the publication of this paper, ether had been tested in London, and found warm advocates amongst the surgeons of that metropolis; and in less than 3 months it was introduced into the Parisian hospitals, and was highly eulogized by the leading surgeons of Paris. From this point the fame of etherization spread rapidly through Europe. While these events were in progress, the practice was slowly adopted in the country of its birth; several weeks elapsed after the publication of Dr. Bigelow's paper before the subject was noticed by the medical press of the United States, and then it was in tones of doubt and incredulity, and it was not for several months that the practice became at all popular south of Boston. The first operation performed under the influence of ether, in the New-York Hospital, was in February, 1847.

We need not say how, since the time mentioned, the use of anæsthetics has become, with the immense majority of the profession, an established rule, where the performance of nearly all serious operations is concerned. As experience has accumulated, new facts tending to settle the conditions under which ether or chloroform may be safely and properly administered, have developed themselves—and although this is a problem which has not been finally worked out, we may hope for its speedy solution through the honest and enlightened efforts of the host of scientific men, now engaged in its consideration.

Professor Simpson's paper on the "Superinduction of anæsthesia in natural and morbid parturition; with cases illustrative of the use and effects of chloroform in obstetric practice," was read before the Medico-Chirurgical Society of Edinburgh, on the 1st of December, 1847, and reached this country in the early part of this year. It created a strong impression favorable to the new agent proposed by Dr. Simpson, and induced many practitioners at once to adopt it as a substitute for ether. The advantages claimed for chloroform over ether by its advocates, are its more rapid and intense action; without the vascular, muscular and intellectual excitement, which usually precedes the full impression of ether.

The question of the superior merits of the only two anæsthetics which are worth considering—ether and chloroform—is not decided. Many surgeons who have used both, prefer the former. Thus, Dr. Watson, of the New-York Hospital, quotes his colleague, Dr. Buck, as coinciding with him in the opinion that ether is the safer agent, inasmuch as "we have, as yet, become aware of no decidedly fatal case from its use, as we

have from that of chloroform, nor of any in which its ill effects have been so serious as to lead to its total condemnation." Professors Horner and Mütter, of Philadelphia, agree with the surgeons of the New-York Hospical,* not from what they themselves have seen so much as from the published accounts of fatal cases from chloroform. We know that many surgeons of eminence prefer the latter. Further experience, however, is wanting to enable us, definitively, to settle this question. The committee are disposed to consider sulphuric ether entitled to the preference. The fatal cases occurring in Cincinnati and New-York, in which death may, without doubt, be attributed to the use of chloroform, whilst, in America, we have no similar result due to the use of ether, certainly furnish strong support to the correctness of this opinion. The second division of the subject, viz., the description of some of the more obvious phenomena which mark the action of ether and chloroform on the system, is, as the committee say, one of much importance, and the reader is referred to the very able paper of Dr. Bigelow, of Boston, for information on this point. Dr. B. makes reference to nitrous oxide, aldehyde, nitrate of ethyle, bisulphuret of carbon, benzoin and chloric ether, as having been used to produce anæsthesia. The vapor of chloric ether has been employed in the Massachusetts General Hospital with much satisfaction. It is considered to resemble in its effects sulphuric ether; differing in being less irritating, less powerful, and in possessing a more agreeable odor. The other substances mentioned have been pretty much, if not entirely, discarded from surgery, for very sufficient reasons.

By comparing the quantity of each, requisite to produce the same degree of anæsthesia, it is inferred that one drachm of chloroform is equal to one ounce of sulphuric ether. With regard to the modus administrandi, Dr. B. thinks, that for ether—"To avoid its odor, to retard its evaporation, and for brief and repeated exhibition, an inhaler is convenient; but for common purposes, a bell-shaped sponge is quite sufficient. For chloroform, Dr. Simpson's plan of using a folded handkerchief is recommended, when etherization, (by which the effect of chloroform is also understood,) is desired for a short time. A pasteboard cone, a lamp-chimney, a stethoscope, or any tube containing a sponge, answers for obstetrical purposes"—while for the rapid and complete insensibility required for surgical purposes and for hospital use, some more durable form of apparatus is requisite. In all these, Dr. B. alludes to the imperative necessity of having a free and full supply of oxygen, which, as contained in atmospheric air, must be mingled with the anæsthetic vapor. Two stages of etherization are noticed by Dr. B.

First Stage.—The first stage is characterized, either by the incomplete or partial character of the narcotism or by its brief duration. These phenomena suggest the notion that the blood is insufficiently impregnated with ether, or that the vapor has affected a portion only of the circulating fluid, the influence of which upon the brain is soon counteracted by the arrival in the cerebral vessels of fresh and unadulterated blood. Such theory illustrates the degree and the duration of the phenomena attending such inebriation.

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* We have lately learned that, as a rule, chloroform, on account of its more certain and rapid action, and from the belief that proper administration renders it safe, is now used by the surgeons of the New-York Hospital.

The first stage requires for its induction a comparatively small proportion of the ether vapor. Insensibility, if complete, is brief, and the patient revives in a period varying from one to three minutes, commonly without nausea, headache, vertigo, or other sensations of discomfort. But in certain cases, and especially when either from pulmonary irritability, or want of determination on the part of the patient, the dose has been insufficient, and its inhalation by consequence protracted through a period of six or eight minutes, a different range of symptoms is presented. The patient may be bewildered, like a man waking from a deep sleep, or uncontrollable except by moderate coercion. At this time the pulse is natural, or yet more frequently accelerated, either from exertion; or perhaps it has not regained its normal standard after the unavoidable excitement of anticipation. Though, in the first stage of anæsthesia, we might expect the pulse to be accelerated, yet it often deviates but little from its natural standard. Nor is the pupil especially affected in this stage. The muscular fibre is yet animated by the nervous influence, and is generally somewhat rigid; the arm resisting flexion or extension. Occasionally it exhibits the phenomena of catalepsy, retaining any position given to the limb. In rare cases I have noticed the access of clonic spasm, local or general in its invasion. When the spasm affects the glottis, it gives rise to a peculiar symptom, to be alluded to hereafter.

To the first stage of anæsthesia belong those remarkable and unanticipated physiological phenomena, which seem to unlink the intimate connection between sensation and an intellectual recognition of it; between cognizance and memory; between will and action. A patient, thus partially etherized, is said quietly to criticize the amputation of his own leg, or resists the dentist's instruments, and to appearance suffers, and yet remembers nothing of it; or remembers, but has not felt; or, which is unpleasant and fortunately rare, has felt but could not move.

In the early history of etherization, the first stage only was produced, and to this fact, due to ignorance of the extent to which the narcotism should be carried, we may attribute many of the "unsuccessful" cases to be met with in the records of this time. We have, ourselves, seen unmerited blame bestowed on ether and chloroform, from want of this knowledge. A caution is given, very properly, against the use of the agents we are considering, in cases where the patient is athletic and excitable, unless sufficient aid be at hand to restrain him during the period of excitement. Violent resistance, however, is not often met with. Vomiting sometimes occurs as a consequence of this stage—not very frequently, we imagine, since it has only taken place once in about 150 administrations, principally of chloroform, in our own experience. The first stage, Dr. Bigelow says, is adapted to the purpose of the dentist. "The second stage is essentially characterized and identified by muscular relaxation."

Second Stage.—Such is the second stage of anæsthesia, essentially characterized and identified by muscular relaxation. Let the subjects of the last mentioned experiments continue inhalation. The arm, from time to time, when raised from the side, resists. Soon, however, it becomes flexible, and at last, falls passive and motionless. The voluntary muscles are now relaxed; and it is impossible at this moment to rouse the patient. This stage requires for its induction a considerable quantity of ether vapor, which may be presented to the pulmonary surfaces either rapidly in the course of two or four minutes, or a more diluted vapor may be administered during a protracted inhalation of many minutes. In the former case, anæsthesia is of rapid access, and in its most favorable form. But in the latter, the dilute and pro-

tracted inhalation is often accompanied with the annoyances of partial anæsthesia, and it will be stated in another part of this paper that other symptoms, especially that of vomiting, are quite apt to interfere with inhalation before the inebriation has reached its second stage. The commencement of this state of narcotism, characterized by passive flexibility of the arm, suffices for any brief surgical operation, which is not likely to be impeded by the movements of returning sensibility. Yet this insensibility at its inception, though complete, is brief, and the revival of the patient often sudden.

A few additional inhalations so impregnate the system with the vapor, that revival is deferred for some minutes after the inhalation of pure air. Ether is this way cumulative in its effects. Besides this, recovery is then generally not instantaneous, but gradual and preceded by the signs of returning consciousness which indicate the re-administration of the anasthetic, and enable the surgeon, thus, to anticipate interruption, protract the inhalation, yet a little longer and the inspiration becomes a snore, the pulse which may or may not have been previously accelerated, beats slowly; while the pupil is frequently, though not invariably, dilated.

Some little familiarity with these phenomena is required to enable the surgeon so to graduate inhalation as to continue the patient in this state of tranquil and deep sleep with safety.

Dr. Bigelow states that this can be done, with the requisite amount of experience. He speaks of having maintained insensibility for nearly or quite thirty minutes. We have done so for a longer time—once, for forty-five minutes, in a patient on whom Dr. Van Buren took up the external iliac artery, for aneurism at Poupart's ligament; and a second time, in the case of a child three years old, on whom the same surgeon performed the operation of tracheotomy for the removal of a foreign body from the larynx. In the latter case, complete anæsthesia was kept up for one hour. En passant, we may remark that both operations were perfectly successful and the recoveries rapid. Dr. Mott was present on both occasions, and expressed his unbounded admiration of the action of the anæsthetic (the mixture of ether and chloroform); but especially were his pleasure and surprise manifested in the tracheotomy case, which was rendered unusually tedious by a large congeries of veins, covering the anterior tracheal region.

Two most important conclusions arrived at by Dr. Bigelow should always be borne in mind. Our own experience affords the most ample proof of their correctness. They are given for the purpose of defining the limits of anæsthesia, in surgery. On the one hand he takes the signs of returning consciousness, before alluded to as indicating the propriety of re-commencing inhalation. On the other, a far more important indication—that for its discontinuance—is to be found "*in the diminution of the force and frequency of the pulse.* Without this safeguard," to quote his words, "I conceive that it might well be hazardous to overshadow animal existence by this mysterious and powerful agency. I have not hesitated to push etherization to complete insensibility, and to continue it, if necessary, for a length of time, provided the pulse remained full and strong. If it be retarded, it is curious to observe with what certainty it recovers force and frequency, after a few inspirations of pure air." It will be inferred from these remarkst hat the pulse is to be carefully examined during the whole anæsthetic process, and that inhalation is to be temporarily discontinued at its indication.

The *Signs of Narcotism* are given as follows:

The eyes are usually closed during inhalation. Let the patient be directed to open them. If etherized he takes no notice of the voice. Perhaps the head droops, or the hand supporting the inhaling apparatus falls. These, alone, are signs of narcotism which may be incomplete, or, if complete, temporary in duration. If, in such a case, the arm of the patient be raised from his side, it is quite likely to resist the effort; or, when raised, remains extended—phenomena indicative of partial narcotism.

One of the early and occasional consequences of inhalation is a passive cessation of respiration, while the pulse continues good. At this moment a tooth may be painlessly extracted.

Muscular relaxation, as shown by the temporary loss of muscular contractility—the passive flexibility of the arm—is the most valuable sign of complete narcotism. It is succeeded by snoring inspiration and slow pulse.

Signs of returning consciousness are swallowing, coughing, moaning, an effort to articulate and muscular movement.

Rapidity of access of Anæsthetic State.—This depends on idiosyncrasy. As a general rule it varies directly with the dose administered. Many of the unfavorable symptoms are due to protracted inhalation of too little vapor. From what we have seen we do not think it advisable to put the patient too suddenly under the influence of the vapor. A few inhalations of a moderate quantity will frequently prepare the pulmonary apparatus, so as to endure, without irritation or cough, the full administration of the anæsthetic.

"*Vomiting* is especially connected with the long duration of the inhalation, and also with its inadequacy." We think that very few writers, on the subject which now interests us, have attached sufficient importance to the state of the stomach, as regards repletion, before the performance of a surgical operation, during which protracted anæsthesia is essential. Dr. Mott has, for some time past, insisted that the patient should abstain from food for several hours before the operation, in order that the empty stomach might prevent the complication and inconvenience which the act of vomiting is often found to produce.

Dr. Bigelow devotes a section of his paper to the symptoms of anæsthesia, considered separately. The intellectual phenomena, mental excitement, pulmonary irritability, nausea and vomiting are noticed. As these have already been referred to and are soon appreciated by those having even small experience in etherization, we shall do no more than allude to them in this place.

The snoring inspiration indicates profound sleep. Varying a little in the facility of its production in different individuals, it is a constant phenomenon of a certain stage of narcotism. While it is often desirable to induce this symptom, its exhibition renders further inebriation unnecessary for the moment. It is always accompanied with muscular relaxation, and soon succeeds it. It results from the relaxation of the muscles of the palate; and in this connection it is desirable to distinguish it from another symptom, of somewhat different signification, viz:

Sterlorous respiration, due to spasmodic action of the vocal chords, and allied to the spasmodic action of other muscles. It is somewhat rare in its occurrence; once heard, it will be readily recognised, and indicates a brief suspension of the inebriating process. Though of itself, it is quite unimpor-

tant, yet as the immediate cause of another symptom, it deserves further consideration. The closure of the laryngeal aperture shuts off the supply of atmospheric air from the pulmonary tubes. The same condition results from the voluntary closure of the mouth and lips; but the last soon yields, while the spasm of the glottis gives rise, in rare cases, to a partial asphyxia, indicated by the livid color of the cutaneous surface. Two or three inspirations suffice to restore the cheek to its natural color.

The sphincters occasionally, though not often, are relaxed, and the patient voids urine and fæces. This, we believe, occurs only in the second stage of anæsthesia.

The pulse is usually much quickened by the excitement attending etherization. From this fact, it is difficult to estimate its frequency, at the early part of the administration. It does not lose either in force or frequency, until the whole system is profoundly narcotized.

Prolonged insensibility after inhalation is not often met with, though patients have occasionally been known to relapse into the narcotic state after having been once more or less completely aroused. Convulsions have been reported, occurring at the interval of many hours after inebriation.

Vertigo, headache, and disability for labor, have ensued; in one case related, for several months after ether had been inhaled.

Consequences similar to the above have been used, by those who condemn etherization, to demonstrate the impropriety of producing anæsthesia. The great discovery has not many such opponents at this day, and we may observe with Dr. Bigelow:

Such cases, with others which have been detailed, must be considered as exceptional, due to peculiar and individual susceptibility, and they are also of exceeding rare occurrence.

The degree of anæsthesia adapted to different operations in surgery is specially alluded to. This depends on the length of the operation and the indication in any given case. In hernia and dislocations, the second stage is, of necessity, required to ensure muscular relaxation. Snoring indicates the point beyond which, for the time, there is no need of continuing the inhalation. Attention to the pulse will prevent us from passing the dangerous limit, beyond which fatal narcotism is to be feared.

The best antidote, when an overdose has been administered, is to allow the patient to remain tranquilly in the horizontal position and to insure a plentiful supply of fresh air. Artificial respiration is spoken of by our author, but we know of no case in which it has been proved to be beneficial. By some of the English experimentalists it has been condemned.

Brandy and other diffusible stimulants, appropriate remedies for syncope, belong to the class of agents which induce the anæsthetic symptoms, and it is quite probable, though evidence is yet incomplete on this point, that the difficulty would only be aggravated by their use. Besides, the patients cannot always swallow. Cold water dashed upon the face, or injected into the ears, undoubtedly aids in arousing the patient from the common ether narcotism.

Galvanism to the precordial region has been suggested as a remedy in an extreme case; and it may be a question whether rest in the recumbent posture or active exercise, as adopted for the restoration of subjects affected with narcotism from opium, be best adapted for these cases. If any fluid is to be administered internally, analogy would suggest strong tea or coffee.

The nature of the anæsthetic state, a point of much interest, is alluded to and is considered by Dr. B. as analagous to ordinary alcoholic intoxication.

Both, in small quantities, produce exhilaration. Both, in a large dose, produce the phenomena of dead drunkenness, and both, insensibility to pain. With alcohol, the state persists while the fluid remains in the stomach; and patients have been at once aroused by the use of the stomach-pump. In like manner anæsthesia continues while ether vapor fills the lungs; respiration pumps the ether vapor from that receptacle, and gradually aerating the blood, terminates the anæsthetic state. Alcohol is found in the blood by chemical analysis; ether is equally detected in it by its peculiar odor.

Convulsions have been noticed in rare connection, both with ether and with alcohol. Finally, there is in ordinary cases, no great solicitude for the safety of a patient who is dead drunk, and experience has shown that ether narcotism is very rarely accompanied with danger.

The concluding paragraph of Dr. Bigelow's paper is one which bears forcibly on the great question so often asked. Is the use of chloroform and ether to be recommended as a general thing and on ordinary occasions, as well as in cases where life is considered to be jeopardized by the duration and violence of pain, or a fatal shock to the nervous system is anticipated? This will be answered, as it has already been, very much according to the experience of the person who replies. Mr. Lawrence, in whose hospital the anæsthetics have been used "between two and three thousand times, without injury or accident," (to quote his own words) would probably answer in the affirmative; whilst we know of a surgeon who has declined to produce anæsthesia in future from a single fatal issue following a capital surgical operation, at some days distance of time; which issue, to our mind, was in no way attributable to the deleterious effect of chloroform.

Further experience is wanting, by many, to enable them to make up their minds on the point referred to. This they are rapidly obtaining, since, we believe, there is no part of the world in which surgery is recognised as a science, where anæsthesia is not daily, in hundreds and thousands of instances, produced. Dr. Bigelow's language expresses our sentiments so exactly, that we should not do so well were we not to quote his concluding paragraph—

If there is any one consideration calculated to arrest attention in the history of etherization, it is, that although the anæsthetic agents have been open to liberal use in every part of the civilized world, whether experimentally, ignorantly, or carelessly; although thousands have experienced their good effects; and although the physiologist, the ether opponent, and the coroner, have been equally ready to seize upon and to exaggerate any case of accident that might seem to fall within their range; yet it is probable that the number of cases, thus publicly suspected, have been less than ten, while the only conclusive instance of direct relation between an anæsthetic agent and death are two in number. Can antimony or opium show as clean a bill of health for the same period? Can leeches or the lancet do better?

Appended to the report of the committee are several statistical tables of operations performed under the influence of ether and chloroform, at public institutions in Boston, New-York, and Philadelphia. These, taken with the reports, not tabulated, from different surgeons to whom the

committee applied for information, amount to upwards of 300. The invariable result, we gather from the report, on the minds of those who have had experience in anæsthesia as applied to surgery, has been a firm persuasion of the usefulness and propriety of its production, in nearly all cases requiring the use of the surgeon's knife or painful manipulation. Special reference is made to the operations of lithotomy, for strangulated hernia, for amputations of nearly every kind, for examinations attended with great pain, as in explorations of the bladder, the vagina, and other parts, rendered preternaturally sensitive by disease.

Were it within the scope of our article, we might easily adduce numerous instances, from the French and English journals, to show how the most formidable operations in surgery, such as amputation of the arm at the shoulder-joint, excision of the scapula and one-half the clavicle, amputation of both thighs, for a rail-road accident, in which the two legs were shattered, have all been performed, with complete success, whilst the patients were under the full influence of ether or chloroform vapor.

The next report, at the meeting of the association in 1849, of the committee whose labors we have so hastily considered, may be looked to with much interest. We doubt not that such general returns of the action of anæsthetic agents will be furnished by American surgeons and physicians as will suffice to form rules of practice for the profession at large, who, we hope, will be as little fearful of employing the narcotic vapors as they now are of using antimony, opium, mercury, arsenic, or the lancet.

J. T. M.

ART. IX.—*An Inquiry into the Degree of Certainty in Medicine; and into the Nature and Extent of its Power over Disease.* By ELISHA BARTLETT, M.D., Professor of the Theory and Practice of Medicine in Transylvania University; Member of the American Academy of Arts and Sciences, &c., &c. Philadelphia: Lea & Blanchard. 1848. 12mo. pp. 84.

THE scope of this work is worthy of a Professor of the Art and Science of Medicine, and the style is quite refreshing, it is so clear, so elegant, so classic. Some parts of it remind us of the dignity of Celsus, the elegance of Gregory, or the clarity of Cullen. There is the purity and honor of a high, well-formed and well-instructed mind, discernible in every page. If Medicine be not all the author thinks it is, the fault is, that the *Art* has had so few who follow it as a *Science*. Enthusiam in a science, may not free us from the curse of ignorance and error, but it will never leave us easy under it. The man who practises the art of medicine for the gains alone, who just adopts the current, or the stagnant notions of the day, in order to secure the keeping of his patient safely towed along the dull canal of unexplained and unexplainable routine, is not the man to give us doubts or their solutions.

The author is a man most thoroughly and far removed from any such suspicion; and in an able, open, and unvarnished—yet not unpolished manner—has given us a close investigation of a most important question, "What is our practice worth?" The pleasant, glowing style in which he writes, if used with specious purpose, and employed with skimming touch of his great subject, might have left a wide impression, and

been a profitable undertaking, if he had been lucre-minded. He, on the contrary, has selected for examination, a disease, which probably is less under the control of medical art, than any other, and with rigorous patience, dodged it through the mathematical test of figures, the most exact, the most relentless test.

He singles out *pneumonia* for examination. He might almost as well have singled out cholera or the plague; for in pneumonia the very source of life is *dis*composed, oftentimes *de*composed, disorganized, and destroyed. The difficulty of restoring a man with diseased lungs, is much the same as making an organ perform well with broken bellows.

Every one must perceive the thorough honesty of the selection. If the result of the examination had been more favorable, we should have been surprised, not to say delighted—as it is, we are content. *We* draw a very different conclusion from our author, but not adverse to him. First, let the author speak, ourselves will follow.

I am stating only what everybody knows to be true, when I say that the general confidence which has heretofore existed in the science and art of medicine, as this science has been studied, and as this art has been practised, has within the last few years been violently shaken and disturbed, and is now greatly lessened and impaired. The hold which medicine has so long had upon the popular mind is loosened; there is a wide-spread skepticism as to its power of curing diseases, and men are every where to be found who deny its pretensions as a science, and reject the benefits and blessings which it proffers them as an art.

It is not necessary, for my present purpose, to point out the causes and influences which have led to this state of things. I will merely say, in this connection, that however trifling and inconsiderable may have been the effects upon the feeling to which I have alluded, of the famous article of Dr. Forbes, first published in the British and Foreign Medical Review, I give utterance, I suppose, to the almost universal sentiment of the profession, when I express regret that the author of that article did not accompany his official and voluntary confession of medical delinquency, incompetency, and uncertainty, with the qualifications and conditions absolutely essential to the truth of the confession itself. This, Dr. Forbes has almost wholly neglected to do. Without entering into any elaborate criticism of his paper, it is quite safe to say, that he has taken, if not a distorted, at least a partial view of his subject; he has looked at one side only of the shield; one hemisphere only of his world of truth has been turned to the sun. Now, this partial view is necessarily a false view: it is false because it is partial—if for no other reason. Dr. Forbes has drawn, in strong and exaggerated colors, the manifold imperfections of medical science, and the discouraging uncertainties of medical art; but he has neglected to show the limits of those uncertainties, and to circumscribe the boundaries within which these imperfections are confined. This he should have done, and not only would his second picture have constituted, on the principle of contrast, often followed by artists in such matters, an appropriate companion to his first,—the clearer and more radiant sky, the steadier and serener light, the erect figures with hopeful and forward-looking faces of the former, brought into striking and beautiful relief by the cloudy and uncertain horizon, the murky and dim atmosphere, and the constrained and groping shapes of the latter—but more than this: his first delineation is a true one only when the second hangs by its side; the harmony of the lights and shadows, and the truthfulness of the objects in each picture, are dependant upon the presence of the other.

The canvass, which now stands upon my easel, is placed there to receive, at least the outlines, and some of the leading and more prominent features of

this second picture. I have waited, I think, long enough for Dr. Forbes, or for some one else better qualified than myself, to do the work which I have here undertaken. If Ulysses is not present in the field to bend his own bow, some weaker arm from the camp must essay the enterprise. It seems to me high time that a clear and earnest word should be spoken for the science which we study and teach, and for the art which we inculcate and practise. The interests of truth, of our profession, and of humanity, alike demand that the legitimate claims of medicine to the regard and confidence of mankind should be vindicated and maintained. And this is the task I have set myself. I wish to show as clearly and as positively as I can, the nature, and the degree of the certainty that belongs to medicine as a science, and as an art. In doing this, I shall deal but little in general assertions, unsustained by positive proofs, and not at all in empty and vague declamation; I shall state the reasons of the faith that I profess, and I shall exhibit the evidence upon which it rests.

From this page to the sixteenth, there is a very elegant and excellent defence of the two sciences of Anatomy and Physiology, which we would with great pleasure quote, but that our purpose and our space do not admit. We therefore give in the author's own words, his own task, and select from his performance such parts as we think best adapted to display it.

It is not, however, against these departments of our science that the accusations to which I have alluded, have been brought, so that there is no occasion for my giving to them any thing more than this general and passing notice. It is unnecessary to make a formal defence of a point which is never attacked. The charges of which I have spoken, refer particularly, and almost exclusively, to that department of medical science, designated by the terms *pathology* and *therapeutics*. This department is constituted by the phenomena and relations of disease; it embraces all these phenomena, and all these relations. It professes and claims to consist of, a knowledge of the causes of disease, of the seat and phenomena of disease, and of the means of preventing, mitigating and removing disease. The charges against our science are, that it deceives itself in this matter,—that its pretensions are either altogether false, or greatly exaggerated—that its knowledge of disease is vastly less than it professes to be—and especially, that its power of curing and of mitigating disease has been immensely over-estimated and over-stated. These charges sometimes deny altogether the existence of this power, although, in most instances, they content themselves with the allegation that it is very limited in extent, and very uncertain in its application.

The first reply which he gives to this charge, is as follows:

The first inquiry that presents itself relates to the local lesion which constitutes, anatomically, the disease. What, and how much do we know of this lesion?—of its seat, its phenomena, its nature? What are the foundations, the nature, the extent, and the degree of certainty, of our knowledge of these things? The answer to these questions is at hand; it is definite and it is sufficiently satisfactory. We know that with the commencement of the inflammation, the portion of lung which is the seat of this morbid action, becomes of a deeper red color than it has in health, with a livid or violet tinge; that its specific gravity is increased, from an undue accumulation of blood in its vessels, and a corresponding diminution of air in its air-cells; that it has lost, in a great degree, its spongy and elastic feel, and is more doughy and solid to the touch; that it is less tough and more friable; and that when cut or torn, a large quantity of reddish, turbid, and frothy fluid flows from the surfaces. We know that except in a very small number of cases, in which

this stage of engorgement continues until the subsidence of the disease, in the course, generally, of from two to five or six days, the diseased lung undergoes other and still more striking changes. Its specific gravity is still further increased, so that it is as heavy and solid as liver; it contains no air and does not crepitate; its air-cells are obliterated; its surfaces, when cut or torn, are of a deep red color, often mottled or marbled; a reddish, thick, opaque, and semi-purulent fluid flows from them in moderate quantity, and they are crowded with a multitude of small, red, slightly flattened, granulations. When the disease does not destroy life, this condition of the lung, after having persisted for a few days, gradually disappears, and the lung as gradually returns to its former state. In a few fatal cases death takes place while the lung is still in the condition just described; but in a large proportion of these cases, it becomes soft and still more friable, and from violet-red, it becomes of a grayish or yellowish color. Such are the characteristic anatomical phenomena of this local lesion. They are very constant, with the conditions that have been stated, and they have been ascertained with entire and absolute positiveness. A certain class of physicians—I mean the homœopathists—deny the value and usefulness of this knowledge, but no one doubts the certainty of the knowledge itself.

Now, with all due deference to the knowledge thus acquired, we say that this account of the *effects* of the disease, does not give us one particle of information of the *causes* of it. Here are certain appearances and symptoms observed, but *how* and *why* they were produced, we know not, at least the *appearances* and *symptoms* do not teach us.

Suppose we take a man, whose knowledge of the agencies and powers of nature is only that possessed by man in common life, and show him some of the vast geological phenomena: will he from these appearances, correctly trace the hidden causes of them? Let the industrious students of geology reply. Morbid anatomy, a wondrous storehouse of most valuable facts, does not instruct us in the theory of disease. A man may know a dozen languages, and yet may be unable to deduce the etymology of a single word in any one. The etymology is a distinct science.

We are therefore, not disappointed, when we find that all which the author has to give us, is the statistic tabular accounts of Louis, Grisolle and Jackson, respecting the result of bleeding and the use of antimony in the treatment of pneumonia. After some preliminary observations on the high probabilities of the good effects of bleeding, the author gives us what he deems the positive knowledge on this subject.

Between the years 1821 and 1827, Louis studied carefully, and from day to day, at La Charité, the effects of blood-letting in fifty cases of pneumonia, terminating favorably, and in twenty-eight cases which terminated in death. The patients were bled from one to four times, according to the indications in each case; from ten to fifteen ounces of blood being taken at each operation. Of the fifty cases terminating in health, twenty-three were bled, for the first time, within the first four days from the commencement of the disease, and the average duration of the disease in these cases was seventeen days; twenty-seven were bled, for the first time, between the fifth and the ninth days, inclusive, and the average duration of the disease in these cases, was twenty days. Every possible precaution was taken, that the two groups of cases, thus compared with each other, should be essentially alike in all the circumstances that could, in any way, affect the danger of the disease. Louis studied, further, the effects of the same remedy upon the leading symptoms of pneumonia.

He found that the pain in the side was never wholly, and at once, removed by an early blood-letting; but, that on the contrary, it was generally more severe, for twelve or twenty-four hours after the first bleeding, if this was practised early in the disease. He found, however, that the average duration of the pain in the first group of cases, was six days, and a little over eight days in the second group. He found that most of the other symptoms were moderately influenced by the bleedings. Between the years 1830 and 1833, Louis studied in the same manner, at La Pitié, the effects of blood-letting in twenty-nine cases of pneumonia, four of which terminated fatally. Of the twenty-five cases terminating favorably, thirteen were bled between the second and fourth days of the disease, inclusive; and the average duration of these cases was fifteen days and a half; the other twelve cases were bled from the fifth to the fourteenth day, inclusive, and their average duration was eighteen days and a quarter. No one of these cases was bled on the first day of the disease. The first bleedings were a little more copious than in the cases at La Charité. The effects of the remedy upon the individual symptoms did not differ from those in the latter cases.

So far as this limited investigation could settle the question, Louis considered himself justified in coming to this conclusion—that blood-letting has a favorable effect upon the march of pneumonia; that it abridges its duration; but that this effect is much less than had generally been supposed, patients who are bled during the first four days of the disease, all other things being equal, recovering four or five days sooner than those who are bled later. And as far as this particular investigation is concerned, the conclusion is perfectly justifiable and legitimate. It results with a slight qualification, necessarily and inevitably, from the facts; and Louis never pretended to carry the conclusion beyond this. He says, expressly, that these facts are neither sufficiently numerous, nor sufficiently various, finally to settle the question at issue; and that he publishes them principally, for the purpose of calling anew the attention of observers to the subject. It is important to bear in mind that these investigations show directly, not so much the absolute effects of blood-letting, as the difference in its effects when performed early, or late, in the disease. His conclusions, so far as his own facts are concerned, would have been more truly stated, if he had confined it to early, compared with late, blood-letting.*

Now, supposing that we admit the whole of the conclusions deduced from M. Louis' observations, what is the amount of our information? simply, that out of a number of cases of pneumonia, those who are bled are more likely to recover than those who are not, and those who are bled early, are more likely to recover soon than those who are bled late.

That to lessen the quantity of blood which passes through inflamed parts, is good for them, is certain, provided we can secure plenty of good blood to heal them, when we require it. But we protest against

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* There is one other important conclusion of Louis', which is not kept strictly within the limits of his facts. It results from his investigations, he says, that pneumonia is not *arrested* by early blood-letting. It would have been more exact to have said, that, according to these investigations, pneumonia is not arrested by bleedings, *practised after the first day of the disease.* I do not mean to say that this conclusion is a false one; I say, merely, that it does not follow directly and necessarily from the facts from which it is derived. The somewhat moderate difference between the effects of early and late blood-letting, might justify the *probable* conclusion, that blood-letting at the very onset of the disease, would still fail to arrest it; but this question could be positively settled, only by this particular application of the remedy. The effects of blood-letting might be very different within the first few hours, and after the first day of the disease.

this being considered proof of any positive knowledge on the subject of the disease and its treatment. *In what does inflammation of the lungs consist? What are the certain means of stopping that process and restoring the parts to health?* These are two questions which receive no answers from the results of bleeding.

An acute observer of disease and remedy, would perceive that as inflammation consisted in some disturbance of the circulation, and health consisted in the restoration of the circulation to its original condition, the *secret of remedy* would be found in the management of the *cause* of the circulation. The *blood* is not the *cause* of its circulation; for the self-same quantity of blood may be in the vessels when it does not circulate at all, as when it does most healthily, as daily instanced in concussions, epilepsy, and so forth. *The taking away of blood does nothing directly but alter the quantity.*

Indirectly, by taking away the fluid which *contains* the life, we diminish *the life itself*, and *the means of obtaining life*, the *respiration*. *Bleeding, therefore, diminishes the quantity of life.* Can a man have too much of life? It matters not, that from the days of Hippocrates, down to now, bleeding has been adopted. It matters not, that it relieves the tension, and of necessity the pain of an inflamed part, it does not act upon the part diseased, producing any change in its condition. How, therefore, can we designate it as a remedy?

The following quotation is so full of sound sense and philosophy, that at the apparent risk of being tedious we give it:

In order to know exactly and positively the effects of remedies, we ought to be able to compare groups of cases treated by them in all their varieties and combinations, with corresponding groups of cases left to themselves, or treated without these remedies. This is obvious. We cannot know certainly what are the effects of our treatment, unless we have some reasonable and positive assurance as to what would have been the course and termination of the disease if the treatment had been omitted. In the case of pneumonia, as well as in that of most other grave diseases, this knowledge is in a good degree wanting; at least it is scanty and incomplete. The conviction is so general and so strong that this disease may be controlled by remedies, that it is hardly ever left to itself; and certainly no physician, in the present state of our knowledge, would be justified, merely for the purpose of elucidating and determining this question, in adopting such a course. We have no right to sacrifice the interests of humanity to those of science. But the positive and conclusive evidence derived from this comparison is not altogether wanting. It could hardly have escaped observation, that pneumonia might terminate in recovery, quite independent of any aid derived from medical art. Cases must always occasionally, and not very unfrequently have been met with, in which from circumstances of one kind or another—the caprice or necessities of the patient, or the neglect of the physician—no active remedies were made use of, and which still ended in health. Besides this, the use of the leading remedies, although very general, has never been absolutely universal. One practitioner has treated his patients without blood-letting, another without antimony, another without mercurials, another without blisters, and still, with all these omissions, patients have continued to recover. This must have rendered it sufficiently obvious at least, that no one of these remedies was absolutely necessary to the cure of the disease. But we have evidence upon this subject still more precise and definite, which it is important that I should give. I have already referred to five of Dr. Jackson's cases in which general blood-letting was omitted, and which terminated in health, but in which the average duration

of the disease was considerably longer than in graver cases where blood-letting was practised. During the year 1840, Grisolle treated eleven patients attacked with pneumonia, *without using any active remedies.* The patients were mostly young, one only having reached the age of fifty-six years; and all the cases were sufficiently mild to justify M. Grisolle, as he thought, in leaving them without any active treatment. They were confined to bed, on a light diet, had some pectoral drinks, and, in a few instances, a simple laxative, like castor-oil. In nine cases, the inflammation had reached its second stage when the patients entered the hospital; in two, it was still in its first stage, and did not pass into the second. *The cases all terminated favorably,* but it is very important to remark, that, considering the limited extent of the inflammation, and the general mildness of their character, *the prominent symptoms of the disease persisted for an unusually long period of time.*

There is more of statistical information of the results of bleeding, but we can only give one short quotation on this subject.

Louis has *demonstrated* that the circumstance of a few days' difference in the time of practising blood-letting, makes not merely a trifling and unimportant, but a very considerable difference in the duration of the disease, and a corresponding difference in the duration of its leading symptoms. Grisolle has *demonstrated,* in the same manner, that mild and slight cases of the disease, although they would recover without any active remedies, *have all their prominent symptoms very greatly mitigated in severity and shortened in duration by blood-letting.* These cases do not absolutly prove that the remedy saves life, because in these cases life is saved without it; but they do prove the favorable action and effect of the remedy—all that they are capable of proving, in the nature of the case.

The next part of the subject, is the tartar emetic treatment. We honestly confess this goes as much against our stomach as the bleeding was against our heart. We have both given and taken considerable doses of this compound, and are able to appreciate its operation on the bodies of pneumonic patients. The author seems to entertain a high respect for antimonial treatment, and is full of matter, which, to him, is most important. We will let him appear for himself.

M. Grisolle arranges the cases, in which he studied the action of antimony, in three groups or series. The first of these consisted of forty-four cases, observed at the Hotel Dieu, during the years 1839 and 1840, *in which no active remedy was made use of excepting antimony.* Thirty-six of the patients were males, and eight females. Their ages varied from fifteen to seventy-one years, the average being thirty-seven. Nine had vigorous constitutions; fifteen had constitutions of medium strength; and the remainder, nearly one-half, were thin and delicate. In thirty-five cases, the inflammation had entirely passed into the second stage, when the special treatment was commenced; in the other nine, the inflammation was, at least for the most part, still in its first stage. The disease was generally grave; in no case was it mild; in more than three-quarters of the cases at least the half of one lung was involved. In all the patients the disease was sufficiently severe, at the commencement of the treatment, to render its issue more or less doubtful. The treatment was begun from the second to the ninth day of the disease, the mean period being the fourth day. Six grains of emetic tartar was the quantity usually given, in the twenty-four hours, in five ounces of a sweetened vegetable infusion. Sometimes only four grains were given, and the quantity was never carried higher than twelve. If the effects of the remedy on the stomach and bowels during

the first day were violent, on the subsequent days, a small quantity of an opiated syrup was given at short intervals. This treatment was kept up from one to four days, the average period being about three and a half days. Most of the patients took, in the whole, about twenty grains: in no instance did the quantity exceed sixty grains. Vomiting and purging were present in every case, at least for the first day or two, the latter generally predominating. Of thirty-six patients to whom the antimony was given for several days, there were seventeen in whom the vomiting and purging wholly ceased after the third or the fourth day. Of the forty-four cases, six terminated fatally, a little less than one-seventh. The mean age of these patients was over fifty years, and the treatment was not commenced till after the fifth day. The following were the apparent effects of the remedy upon the principal symptoms of the disease. The pain in the side, even when it was excessively severe and acute was generally greatly relieved, or altogether removed. Of thirty-four patients in whom the pain was present when the treatment was commenced, *twenty-three were considerably relieved from the first day; in five the pain, which was excessively acute, was entirely removed.* In five other cases, the pain did not begin to diminish till after the second day; in three it became more violent, and persisted till local bleeding was resorted to. One of the most constant and striking effects of the remedy consisted in the diminution in the force and frequency of the pulse. *In twenty-seven patients, of the thirty-eight who recovered, the pulse on the second day had diminished to the extent of from ten to forty in the minute;* in six the diminution did not take place till the third day; in four not till the fourth; and in one the rapidity of the pulse continued during a considerable part of the period of convalescence. The diminution in the frequency of the respirations was less striking and uniform. As a general rule, the improvement was most marked in cases where the breathing was most accelerated. The viscid brick-dust expectoration lost its pneumonic character and became yellowish or colorless, in most cases within from one to two or three days. *With a single exception*, in which the physical signs continued to increase for four days after the use of the antimony was begun, *these signs either remained stationary, or began to diminish, from the first day.* Thus, in eighteen cases, signs of resolution were manifest at the close of the first day; in eleven, at the close of the second; in two, at the close of the third; and in five, at the end of the fourth. Still, the stethoscopic phenomena were never entirely removed in this short period of time; some traces of them remained, in most cases, at the time when the patients left the hospital. *The heat of the skin, the headache, the thirst, and the general restlessness diminished or ceased with the same promptitude.* Another very striking and very constant result of this treatment was seen in the rapidity of convalesence, and in the small impairment of the muscular strength. The mean duration of the disease was ten days. In more than half of the patients who died, the use of the antimony was followed by a temporary mitigation in the severity of the disease.

We cannot say that we are one whit more in love with tartar emetic, than we were; and the mention of it always makes our "gorge rise." Much as Rasori, Louis, Trousseau, and Grisolle, on the continent, are enraptured with it; much as the Elliotson and Clutterbuck school, in England, may patronize it, still we feel justified in denouncing its use.

For an art to claim the respect of a science, by putting forth a statement that after the lapse of two thousand years, the best discovered mode of treating pneumonia, is by bleeding and giving large doses of tartar emetic; neither of which, nor both combined, can do more than mitigate the symptoms in a proportion of cases, is not to make out a strong case. The philosopher and philanthropist will scarcely recog-

nise the claim, and a court of equity would hardly decree in favor of it if contested. It does not appear to us that such *remedies* are worth the time, attention and respect, which are claimed for them in so many colleges of learning and science throughout the world.

We remember a Professor of Toxicology, who announced that he had discovered a new test for arsenic, which he thought would be of immense importance. The medical world thronged to see the application of the test. Much time was employed in preparing and applying it, and all were on the tip-toe of expectation. The test was applied; but no phenomenon appeared. Again it was applied, but without the slightest effect. We ventured to suggest that the Professor might perchance have taken the wrong bottle. He assured us that *he* was correct. We ventured on another observation, that perhaps the *test* had not been properly prepared, or that there was no arsenic present in the substance tested. Both of these ignorant, not to say impudent suggestions, were rejected with disdain. We waited, and a pause ensued. The Professor, taking off his spectacles and passing his white handkerchief over his forehead, said, "Gentlemen, I have occasionally found this test cannot be relied upon; but usually it is a safe one!" Such are our *remedies*, only the sentence ought to be reversed. "*Occasionally*, they are useful, *but in general* they cannot be relied on."

We wish we could give more space to our author's own remarks. There are several pages of refined and eloquent writing, which show how ardently he cultivates himself and his profession. Most certainly, medicine would be a most exact science, if he could, by benevolent enthusiasm, make it so. Alas, that science is so mathematically, so methodically hard of heart. No poetry, no eloquence, can win her—she must be physically sapped and mined—logically won—the barrier to her citadel must be removed, like the last barricades of France—stone after stone—one at a time, by patient plodding.

We now quote from the other portions of the book such proof of the truth of medical science as our author furnishes for us. He groups diseases, and presents us with the ascertained effects of remedies.

His first group consists of such diseases as "*common catarrh, simple acute diarrhœa, and simple jaundice.*" Of these he merely says—"They may, generally, be safely let alone—but most of them may be favorably influenced by an appropriate medication." Modest enough, certainly, and agreed to.

His next group is "*Functional dyspepsia, chorea, and chlorosis.*" The only thing which is adduced to prove our science here, is in the following sentence: "If our science and art had done nothing more than to ascertain the effects of iron upon this malady, (chlorosis,) they would have presented a gift to humanity, that ought at least to shield them from the blind and bitter assaults of arrogant ignorance and wooden-headed stupidity."

The author's wheels are warming, we may expect some fire soon. The next group is "*Sporadic dysentery, simple acute rheumatism, acute pleurisy, tonsillitis, catarrhal croup, and so on.*" Of these he says, we cannot do much for them, except give opium for dysentery, and an emetic for croup.

The fourth group "includes most of the serious *local inflammations*, and all the *general fevers—continued, periodical, and exanthematous. Whooping cough, Asiatic cholera, erysipelas and delirium tremens.*" We must here let our author speak out.

"These diseases differ so widely amongst themselves, in their relation to remedies, that it is difficult to speak of them in general terms. Some of them are more obviously and more uniformly influenced by remedies than others. There is no more doubt, for instance, of the favorable effects of blood-letting upon inflammation of the pericardium, of the liver, of the kidneys, than there is of these effects on pneumonia. There is no more doubt of the efficacy of wine, in certain stages and conditions of British typhus, than there is of the effects of antimony in pneumonia. Every day, there are multitudes of patients with this disease, as directly and obviously saved from death by active stimulants, as the life of a famishing man is saved by food. And we find here one of the most constant, and one of the most important therapeutic relations—I mean that between periodical fever and Peruvian bark. The power of opium to allay functional spasm, and to abate neuralgic pain; the antiphlogistic action of antimony, in inflammation of the lungs; the effects of an emetic in catarrhal croup, of iron in chlorosis, of wine in low typhus, are not more invariable and certain, than is the power of cinchona to control and arrest the periodical element, in the great family of malarious fevers. The simple forms of these diseases do, indeed, very commonly subside and cease; they rarely destroy life immediately and directly; but their repeated occurrence at length undermines and breaks down the constitution, while in their more violent manifestations, they are as suddenly fatal as yellow fever; and for the prevention of these results, we have one reliable and heroic remedy—cinchona. Somewhat as I said of iron in chlorosis, this gift to humanity is a boon and a blessing, that ought to secure for medical science and medical art the deep and everlasting gratitude of the world."

We single out a sentence for comment, and shall then pass to something else worth noticing. The sentence is this: "There is no more doubt of the efficacy of wine in certain stages and conditions of British typhus, than there is of the effects of antimony in pneumonia."

To our mind, this is not saying much for the value of the wine. If wine be of any service in these cases, it is solely on account of its property of imparting caloric to the solids and fluids of the body. However, as this is done by the decomposition and destruction of a portion of the organization, we hardly know how this agent can be fairly called a remedy. The tartrate of antimony decomposes the blood and solids of the body most fearfully. Witness the bloody vomitings and purgings which accompany its use. It forms a compound with the albumen, rendering it insoluble. The tissue thus is broken up, and the blood rushes through the gap. To us, it is an awful remedy.

Our author confesses that "confluent smallpox, algid epidemic cholera, malignant scarlatina, and the adynamic and ataxic forms of typhus and typhoid fever, not only very frequently terminate in death, but they seem to be very little influenced, in any way, by remedial measures." Then we have another frank and large confession:

"Our fifth group is constituted by a most formidable and appalling catalogue of diseases—having no tendency towards a favorable termination; but little or not at all under the control of remedies; and self-limited only by death. To this class belong *hydrophobia, epilepsy, traumatic tetanus, scirrhus*

and cancer, softening of the brain, tuberculous meningitis, phthisis, membranous croup, diabetes, albuminuria, and various structural lesions of the heart and other viscera. **Most of these diseases are, in the present state of science, beyond the reach of medicine—some of them nearly, and others absolutely so. Amongst thousands of cases of hydrophobia, there are not half-a-dozen authentic examples of recovery; the disease has an invincible tendency towards death."**

We cannot give up more space to this part of our examination: and we need not, for the asthenia of our art and science is so manifest that detail is not requisite. There is a fair claim adduced for the value of obstetrical and surgical knowledge and practice, which will be freely admitted. When once the medical department can be placed upon as sure a basis of knowledge as the obstetrical and surgical, we shall be able to claim as much respect and homage for it. But before this can be done, the facts of life must be observed with greater accuracy, and the truth of life deduced with greater certainty.

This nicety of investigation is not suited to the genius and capacity of every one. Nay, very few possess it. It requires the philosophic temperament, the nice discriminative mind, the patient, plodding, strict investigator. He must be capable of concentrating his examinative powers upon one subject, or phenomenon, for days, or weeks, or months, or years, until the problem is completely solved.

As in the study of a language each word must have its own distinctive meaning, and yet agree with all the meanings of the other words, so, in the study of our medical philosophy, each element and substance, action and phenomenon, must have its own appropriate account and use, agreeing with all other ascertained phenomena and explanations.

The author is entitled to the thanks of every man who values the profession of the art of medicine, and if, instead of calling our attention to the knowledge or the ignorance of others, he will select some branch of our extended tree of ignorance, and load it with the fruits of knowledge, he will have ampler, richer satisfaction than ever can be his by lauding practice which he knows and states to be equivocal.

Our own most humble, and, to ourselves, most humbling efforts, shall be directed to the accomplishment of something in this way. We feel the strong necessity for something being done to render ours the art distinguished by its science. It has been hitherto distinguished more for its urbanity and philanthropy, than for its exact and positive knowledge. Let a few choice and noble spirits dedicate themselves to the examination of the elements and organization of our bodies, their functions, and the effects of substances upon them. Let us not be dismayed by obstacles. We possess the Rosetta stone of animal chemistry and organization, a sufficient key for decyphering the hieroglyphics of life, health, disease and remedy. As many laborers, and as much attention given to our art as was given to Egyptian hieroglyphics, would solve the riddle of our Sphynx as well as theirs. J. H. S.

BIBLIOGRAPHICAL NOTICES.

ART. X.—*A Text-Book of Practical Anatomy.* By ROBERT HARRISON, M. D., M. R. I. A., etc., with Additions by an American Physician, with numerous Illustrations. New-York. Samuel S. & W. Wood. 1848. Large 8vo. 720 pp.

WE have another splendid publication from the press of the Messrs. Wood, those enterprising publishers, to whom the profession has been long much indebted for the publication of the Medico-Chirurgical Review, and many valuable contributions to medical science, and who merit by their courtesy and liberality, its patronage and esteem.

The work before us has been long and favorably known. It is a new edition of the well-known "Dublin Dissector," but so much enlarged, corrected, altered and improved as to be hardly recognisable under its changed name and to merit fully its present appellation of a system of Practical Human Anatomy. That many editions of its predecessor have already appeared and been exhausted, not less than the fact that it has been selected by the fluent and accomplished lecturer on anatomy in the College of Physicians and Surgeons of this city, as the text-book for his class, are sure guarantees of its excellence, and the present edition, we can assure the reader, fully sustains, nay materially enhances the distinguished reputation which it has already attained.

Save in its arrangement, it is a complete system of anatomy, for the use both of students and practitioners. This arrangement which consists in dividing it into chapters containing the anatomy of particular regions, in which, not only is every part minutely described, but the method of examining each clearly detailed, adapts it admirably to the wants of the student, when engaged in the indispensable, and if properly pursued, the agreeable, useful and instructive, but if otherwise, the disgusting, tiresome and fruitless labor of dissection. To enable him to receive from this duty, all the advantages which its proper study and this only can afford, the Bibliotheca Medica, we venture to say, presents him with no better guide. The descriptions, general, individual, and topographical, are most full, clear, and accurate. Nothing seems wanting, and on a comparison of the volume with that of Wilson, on some particular points, we have been obliged unhesitatingly, to give the palm to the work of the Dublin Anatomist. The student who, over the cadaver will follow its guidance, cannot fail to make himself thoroughly conversant with the minutest intricacies of the wonderful and complex structure of our curiously-constructed organism, and he who commits to mind the lesser half even of the minute intelligence respecting it which it contains, may rank in anatomical science almost with an Albinus or a Soemmerring. Not a little physiology and pathology is incorporated with the volume. To the practitioner who needs occasional refreshment on these particular points which in the hurry and toil of business too easily escape the memory, however firmly they may once have abided in it, will find it, we venture to assure him, by the aid of its copious index, an all-sufficient work of reference, and to either of these classes, when supplying themselves

with text-books we recommend it in the strongest terms as meriting a careful and impartial examination.

It is most beautifully got up. The type is clear and excellent, the paper white and satiny; the whole appearance of the work most creditable to the source from whence it issues. If we dare "hint a fault and hesitate dislike" of so meritorious a volume, we would say that its pages are too compact, and its bulk inconvenient; but these blemishes are lost in the excellence of its object and that of its fulfilment.

The many excellent wood-cuts with which it is profusely embellished and illustrated, add greatly to a clear understanding of the text and to fix its details upon the memory, and their introduction into most of our modern text-books may be considered as one of the great improvements of our day, and one of the great advantages which the student of that day has over those who twenty years ago preceded him in his career. W. C. R.

ART. XI.—*Catalogue of Books on Medical Science for sale by the Messrs. Woods, 261 Pearl-street.*

WE have often in casting our eye over the well-furnished shelves of the Messrs. W.'s ample magazine, admired the extent and excellence of the vast collection of medical authorities which stand ranged upon them; but until this catalogue reached us, we had little idea of its completeness. It is indeed a magnificent bibliotheca medica, such as not an individual only, but an institution might be proud to own. The very sight is enough to make the mouth of a bibliopole water. Name but an author of repute, ancient or modern, an erudite antique lover or a modern luminary in our science, and lo, it seems to us, his learned labors are at your hand. The medical press of remote ages contributes its dingy tomes, with their versicolor pages, and their quaint embellishments; while the more exquisite productions of modern art, gorgeous with coloring, rivalling nature in fidelity and imparting to the hideous deformity of disease, the luxurious beauty of a finely-painted posy, and divesting sin of her horrors, and pathology of her distastes, by the admirable application of the pictorial art, lie in profusion before us. There rest their classic dust too often, alas! undisturbed, the graphic tomes of the good old Aretæus and Eginetus, of the "divine old man of Cos," of the elegant Celsus, and of the countless host of ancient medical celebrities down to the middle ages. Next follow their successors, passing, pari passu, in review in the bright pageant, and with not less zeal, and greater success, contributing their valuable researches in the etiology and cure of disease; and lastly, the standard treatises of our own day are there, to post up the gathered lore of former days, and to complete (as far as the science, forward, progressive, improving and improved and mightily enlightened, yet still defective, by virtue of its mysteriousness, will allow,) their history to the present day. Such a collection we suspect is rarely to be found on the shelves of a bookseller, or out of the halls of some venerable institution, whose care and office it is to treasure and arrange, to protect from adverse blasts, these sybilline leaves of the inspired oracles of our profession.

We entreat the physician, who is engaged in the delightful task of selecting a library, in whose sweet solitude he may silently commune with the great spirits of the past and present, and luxuriate in the proofs

of the zeal which has ever been shown in behalf of suffering humanity by his gifted brethren in the good cause; we entreat the student who is laying slowly up the scanty store upon whose utility his hopes of a more exclusive collection at some later day are to be built, and who seeks now only to possess himself of that solid basis of knowledge which will suffice to indoctrinate him into the actual practical duties of his calling, to visit the store of the Messrs. Wood. The one will find there all that can complete and dignify his collection; the other, all that is needed to supply his more modest wants and answer for his more imperative necessities.

The supply of foreign books is remarkably extensive; those of the French school especially, and the beauties of Cruveilhier, of Bourgeny, of Bowin, of Cazenave, of Rayer, display at every turn their tempting charms, their captivating beauties; the blended triumphs of science and of art. The collection, we repeat, is an unusually fine one and deserves inspection. It does credit to the liberality of those who have assembled so vast a stock of the standard literature of the profession, regardless of expense, and who are willing to dispose of it at prices so much reduced and so truly reasonable; it is important to be known that such a Thesaurus exists in our midst; and he who lacks some classic tome in his series, to illustrate, in chronological progression, the history of some scientfic subject, and complete the order of its investigators, can scarcely be deemed unfortunate or excusable, until he has sought for it here in vain.

W. C. R.

Art. XII.—*A System of Clinical Medicine.* By Robert James Graves, M. D., M. R. I. A., one of the Physicians of the Meath Hospital and County of Dublin Infirmary; formerly Professor of the Institutes of Medicine; Honorary Corresponding Member of the Royal Medical Society of Berlin, the Imperial Medical Society of Vienna, and of the Medico-Chirurgical Societies of Hamburgh, Tubingen, Bruges, Montreal, &c., &c. *With Notes and a Series of Lectures.* By W. W. Gerhard, M. D., Lecturer on Clinical Medicine to the University of Pennsylvania; one of the Physicians to the Pennsylvania Hospital, &c., &c., &c. Third American edition. Philadelphia: Edward Barrington & George D. Haswell. 1848. 8vo. pp. 751.

This is a new and much improved edition of a very valuable work—a work not only favorably received in this country, but translations of which have appeared in the French, German and Italian languages. The edition before us comprises forty-six lectures by Dr. Graves and fifteen by Dr. Gerhard to which are added notes on the typhoid and typhus fever of 1848. Dr. Graves has thoroughly revised in this edition the whole of the former published lectures, and in doing so he claims to have "rigorously excluded every assertion and conclusion which his subsequent experience has not verified." A goodly proportion of the work is taken up with observations on fevers. The lectures on typhus in this edition have assumed an entirely new form, all the author has heretofore published has here been not only remodeled and condensed, but much new matter has been added in order to form as far as possible

"a continuous and connected series of reasoning on this disease." A new introductory lecture, containing strictures on the physiological and pathological Theories founded on Liebig's chemical researches, appears in this edition for the first time, and is well worthy of the perusal of the profession. We regret that several detached essays contained in the last Dublin edition, of which this is a reprint, were not published in the present one, they would have added much to the value of the work at the present time. We are pleased to learn that the publishers have announced their intention soon to issue them in a separate form. The value of the work, we need hardly add, is greatly increased by the numerous additions made by the author and editor to the present edition, a portion of which we have only mentioned in the above short notice. The typographical execution of the work is good.

ART. XIII.—*Essays on Infant Therapeutics: to which are added Observations on Ergot and an Account of the Origin of the Use of Mercury in Inflammatory Complaints.* By JOHN B. BECK, M. D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of the University of the State of New-York; Corresponding Member of the Royal Academy of Medicine of Paris; Corresponding Member of the Medical Society of London; one of the Vice Presidents of the Academy of Medicine of New-York, etc., etc. New-York: W. E. Dean. 1849. 12mo. pp. 117.

WE are much pleased to see the essays which compose this volume appear in a distinct form. It will be remembered that they all first made their appearance before the profession in the periodical medical press; many of them in this Journal; and so far as our limited acquaintance with the periodical press will admit of our forming an opinion, we hesitate not to say that there never, in the history of medical literature in this country, has been a series of essays which have commanded more attention and been so extensively republished as these. And need we say that they are deserving of so much notice and attention? We would gladly see in the hands of every young practitioner of our extended country, a copy of this little work. A careful perusal and observance of the instructions contained in it would, we doubt not, save many an anxious doubt at the bed-side of the infant sufferer. The work contains seven essays in all, viz.: I. On the Effects of Opium on the Young Subject; II. On the Effects of Emetics on the Young Subject; III. On the Effects of Mercury on the Young Subject; IV. On the Effects of Blisters on the Young Subject; V. On the Effects of Bloodletting on the Young Subject; VI. Observations on Ergot; VII. An Account of the Origin of the Use of Mercury in Inflammatory Complaints. The sixth and seventh essays are valuable in more than one point of view. They present a careful and accurate, and up to the time they were written, a full digest of the literature of our own country on these subjects. And the last not only claims, but establishes beyond dispute, for our country, the priority of the introduction and use of Mercury in Inflammatory Complaints. We commend these essays to the particular attention of the profession.

ART. XIV.—*Medical Lexicon of Modern Terminology; being a complete Vocabulary of Definitions, including all the Technical Terms employed by Writers and Teachers of Medical Science at the present day, and comprising several hundreds of words not found in any other Dictionary. Designed for the use of Students and Practitioners. Second edition, greatly enlarged.* By D. MEREDITH REESE, M. D, LL. D., Resident Physician of Bellevue Hospital, N. Y., Editor of Cooper's Surgical Dictionary, etc. New-York: Samuel S. & Wm. Wood. 1848. 18mo. pp. 240.

THIS little volume first made its appearance in 1844. It claims only to be a pocket lexicon, designed principally for the use of students. It is well adapted to the end designed, for it is universally conceded that the novice in medicine needs, in the matter of a lexicon, a short and concise definition, one that will in as few words as possible give the meaning, and that too divested of all confusion. Such a work we believe to be the one before us. We cheerfully recommend it to the attention of medical students as they commence their professional studies. This edition is considerably enlarged, corrected and improved; the typographical execution is good.

ART. XV.—*Man and his Motives.* By GEORGE MOORE, M. D., Member of the Royal College of Physicians, London, etc.; Author of "The Power of the Soul over the Body," "The Use of the Body in Relation to the Mind," etc. New-York: Harper & Brothers. 16mo. pp. 301. 1848.

THIS work, the author informs us, "was designed, in connexion with two others, 'The Power of the Soul over the Body in relation to Health and Morals,' and 'The Use of the Body in relation to the Mind.'" It has no direct bearing upon medical science, the tone of the work being more particularly religious. The style is simple and perspicuous. While we respect the spirit that leads to the making of such books, their character will not allow us to give them an extended analysis in our pages. The typographical execution of the work is neat, and we have no doubt that it will meet with a ready sale. E.

ART. XVI.—*The Breed, Management, Structure and Diseases of the Sheep.* By HENRY J. CANFIELD. Salem: Ohio. 1848.

As every thing relating to the health of the human family is connected with our profession, the management of an animal forming an important article of diet, eminently deserves its notice. Diseases may be communicated from one animal to another. Thus, smallpox may be transferred from man to the cow, and retransferred to man in a modified form; glanders is communicated to the human subject from the horse, and hydrophobia from the dog: the entozoa from measled pork have been found in the human brain, and were the cause of apoplexy. Even the diseases of vegetables produce diseases in animals. After the appearance of the potato disease there was great mortality among horses. A case has been lately related, where a man died in consequence of having

the virus of a diseased potato absorbed by an abraded surface on one of his hands. The blight in rye produces dry gangrene. Dr. Fell, of this city, lately met with a variety of tinea of scalp, face, and neck, caused by insects from the leaves of the paper-mulberry. Illustrations of the transference of disease might be multiplied, but enough has been stated to establish the fact.

If tubercle can be propagated by contact, as Laennec and other pathologists believe, the eating of unhealthy mutton may be a cause of consumption, for he who eats diseased mutton stands a fair chance of being infected. The comparative immunity of the Israelites from pulmonary complaints, may be ascribed to the strict examination as to the healthy condition of the animal before it is allowed to be eaten. If the slaughter-houses were all in one place, and a similar custom of inspection were adopted, many valuable lives would be preserved, as no one can tell the individual for whom the poison of a diseased carcass is destined.

The author is not of our profession, yet he evinces an intimate knowledge of its elements; and although we do not agree with all his theories, we believe they are generally correct. The fact that, in a neighborhood where many of the sheep die of the rot, and other diseases, he possesses a flock of upwards of three hundred in fine health, is sufficient proof of his practical skill.

The remedies employed for sheep are not dissimilar to those made use of in the treatment of man, although several of them appear singular at first sight. Thus, in some of the diseases, after the administration of a purgative, a mixture of equal quantities of gypsum, chalk, and common salt, is recommended as a deobstruent. By decomposition in the stomach, these ingredients yield the solutio-muriatis calcis, which was so often prescribed for tuberculous affections before the introduction of iodine. It would be troublesome to make a sheep take a bitter solution, but prepared in the above manner and mixed with its food, the medicine is taken without difficulty.

Whitlaw, who has paid much attention to the diseases of cattle, asserts that a mixture of salt and lime sprinkled on the soil, will not only destroy voided entoza which may be seen creeping on the grass, but will also prevent the formation of noxious weeds.

The prevention of the potato disease would be a blessing to millions. The dissemination of the means of obtaining healthy instead of diseased mutton, and thereby diminishing the generation of disease, is truly a work of philanthropy. W.

PART THIRD.

EDITORIAL

AND

AMERICAN MEDICAL RETROSPECT.

PROGRESS OF CHOLERA IN AMERICA.—This disease, which has been gradually extending westward over Europe, has at last appeared on this side of the Atlantic. The ship New-York left Havre on the 9th of Nov. last, with 21 cabin and 331 steerage passengers, and a crew of 33—making in all 385 persons on board. The steerage passengers were part Germans, from different parts of Germany, and the rest from Paris and its vicinity.

There was no cholera either in Paris or Havre, when the ship left the latter port; and the passengers were healthy. They made a prosperous voyage, and remained in good health, until they had been 16 days at sea, and had arrived near the American coast, in latitude 42° north, and longitude 61° west, when one of the steerage passengers was taken sick with a severe bowel complaint. The next day several others sickened, and the same thing continued to occur each succeeding day until their arrival in this harbor; at which time eight or ten were found sick with true cholera, and removed to the quarantine buildings, and nearly an equal number had died on board. The ship was placed in quarantine, and the steerage passengers lodged in the quarantine store-houses. They arrived at the quarantine December 4, and the disease continued to prevail among the passengers, at the rate of three or four new cases daily, until the 9th, when no new cases appeared until the 11th. It then reappeared, and in a short time left the passengers from the New-York, and began to prevail in the Marine Hospital, with which those from on board the ship had had no communication whatever. We have seen two or three statements, apparently reliable, affirming that among the passengers on board the ship, those only were affected who came from Paris and its vicinity. In a few days after the disease appeared at the quarantine, an individual coming from that place, stopped at a German emigrant house at the corner of Cedar and Greenwich streets, and being attacked with the disease, was carried directly back, and died in a few hours. On the 11th December, several days after, another case occurred in the same house in Greenwich-street, which was *excessively filthy*, and crowded with upwards of 200 emigrant lodgers. This also died in little more than 24 hours. No more cases occurred in the city until the 20th, when a German, who had been twelve or eighteen months in this country, and who had only a few days pre-

vious come to this city, for the purpose of taking passage back to Europe, and who had had no connection whatever, either with the house in Greenwich-street, the ship New-York, or the quarantine, was attacked at the house No. 161, Washington-street, and soon died. Since this, no new cases have occurred in this city. The whole number of cases which have been reported from the quarantine, by the Health Officer, and by the Resident Physician, up to this time, January 1, 1849, is 91, and the whole number of deaths 47. These figures may not be exactly correct, but they are nearly so. On the 16th of December, five cases of cholera were reported to have occurred at New-Orleans, in connection with the ship Swanton, and although the Board of Health of that city declares these cases to be only an aggravated form of common cholera-morbus, yet the disease rapidly extended in the city, where nearly 80 cases had occurred by the 21st. And the despatches by telegraph show that it continues to spread in an alarming manner; no less than 100 new cases being reported for the 25th, and between 30 and 40 deaths. These accounts may be exaggerated, but it is evident that the disease, in a severe and epidemic form, has commenced its ravages in the South-west—where the weather has been unusually warm and wet. Such is the simple narration of facts, as near as we can gather them, concerning this third appearance of the cholera on this continent.

COMMUNICATION.

New-York, October 29, 1848.

To the Editor of the New-York Journal of Medicine:

Sir,—The regular and steady progress which the cholera is making over its former field of action in Europe, renders it almost morally certain that it will, in the course of a few months, perhaps sooner, once more bring desolation to our shores.

The public journals of the country, copying those of Europe where the disease is prevailing, have given rules for avoiding all exciting causes, as well as for taking the necessary curative means until the physician arrives. This is all very proper, and if the rules be duly observed a vast amount of disease, suffering and death will, under the blessing of God, be averted.

But there is another and most important view of the case, to which I beg to direct your observation. The old adage, that prevention is better than cure, was never more applicable than in cholera; and although much can be done towards prevention, even in the most severely affected districts, still the most effectual mode of prevention is to remove from the sphere of its action altogether. The sporadic tendency of cholera, that is to say, its disposition to visit one place with enormous severity and to pass by others almost harmlessly, is well known, and has produced much comment and given rise to much speculation. The mystery will, however, in a great degree vanish if we study the localities where such phenomena appear. The substrata of various places have at no time, I think, been sufficiently investigated by the

profession, not only in reference to cholera but to other diseases of depression. Clayey soils, rich, strong loams, alluvial flats, and the vicinity of rivers and lakes are remarkable for developing all these affections; while the gravelly, sandy, chalky, and dry soils of all kinds, are equally remarkable for their exemption from them. Thus, for instance, the hilly and gravelly country at and near Lebanon Springs, escaped the cholera altogether on its former visit to this country. So also did the sandy district of Monmouth county, New-Jersey. The same was observed in many parts of England. The valley of the Axe, for instance, felt not the ravages either of cholera or influenza, and this was ascribed to the dry and chalky soil of the region.

We know too little of the nature of these diseases, as well, indeed, of all atmospheric affections, to explain these phenomena satisfactorily; it is enough for our present inquiry to know that cholera and influenza are most prevalent and most fatal in low and damp situations. A damp and impure atmosphere is the most prolific medium for disseminating these peculiar contagions, which have so long baffled the investigations of the medical profession in all countries.

I have already adverted to the superiority of *prevention* over that of *cure*, and intimated that the most effectual mode of prevention was to remove entire from the field of infection when that is possible. Thousands of persons, I am sufficiently aware, must remain in the cities and be content to meet the result, be it what it may; but, nevertheless, many can remove, especially if a convenient place be found which is easily accessible, and where the expense of living is not great. Such a place I have discovered in New Jersey. The village of Middletown Point, and its vicinity, which can be reached in a couple of hours, by taking the steamboat to Keyport, is a place which may be regarded as one of safety. It is a sandy district of several miles extent, with an atmosphere as salubrious as any in the world. The soil is so porous that wet feet rarely occur to the pedestrian. Pulmonic and bronchial affections are speedily relieved there by the mere influence of the atmosphere alone. Intermittent rarely happens, and the cholera was unknown there—the premonitory symptoms not even appearing. It is an excellent winter climate, for this latitude, for all those suffering under affections of the throat and lungs, or the bowels, and in short, the mucous membranes generally. The remarkable purity and dryness of the air of this place is accounted for when we consider the sandy and consequently porous nature of the soil, and bear in mind that being a few miles distant from the sea it is not exposed to the damp and harsh winds coming in from the Atlantic, which are so distressing to many invalids who reside nearer the margin of the ocean.

I am, Sir, etc., J. S. Bartlett, M. D.

New-York, December 22, 1848.

To the Editor of the New-York Journal of Medicine:

Dear Sir,—Since I furnished you my "Extracts," containing a case of "Chorea induced by Deformity," and detailing the operation upon the feet, I

have completed the case by removing the extra finger, and have just made a drawing of the improved hand, which, with a representation of the deformed hand, I forward to you, which please insert with the original article, if it has not already gone to press.

I removed the extra finger under the influence of chloroform, on the 13th, and have this morning made the enclosed drawing. The wound has all united by first intention; the hand looks quite respectable, and the girl is in perfect health.

Yours respectfully,

LEWIS A. SAYRE.

[The above having been received too late for insertion in its proper place, we therefore publish it in the editorial department.—*Ed. N. Y. Jour. Med.*]

PATHOLOGY AND PRACTICAL MEDICINE.

TYPHOID FEVER. By Prof. J. P. HARRISON. (*Western Lancet.*) [The following conclusions which are contained in a late Clinical lecture, by the author of "Elements of Materia Medica and Therapeutics," do not accord with the generally-received opinions of the profession at the present time. We give them that our readers may have both sides of the question. By doing so, we do not intend for a moment to question the identity of typhus and typhoid fever.—ED. *N. Y. Jour. Med.*]

The absolute diagnosis of typhoid fever we hold to be, at present, exceedingly difficult of statement, because it involves the whole question of fever, a matter yet admitting of infinite debate, and because of the disputed individuality of the disease. We deem it best, therefore, explicitly and at once, to state that all we know on the subject may be summarily thus announced; which may be stated in ten propositions.

First.—That typhoid is a distinctive form or variety of fever.

Second.—That it bears a close affinity, or resemblance to the typhoid stage of our common bilious remittent, and also to ordinary typhus fever.

Third.—That typhoid fever, whilst it resembles the above forms of morbid affection in the lesions of innervation, of secretion and excretion, and of the general circulation, differs from both in the less degree of stupor, and adynamia, as well as in the eruptions, and in the organic alterations which obtain.

Fourth.—That typhoid fever is not, in any degree, contagious. The same proposition may be laid down in reference to typhus, which, under free ventilation and cleanliness, is never propagable by any specific emanation from the sick. This cannot be said of any decided contagious disease; smallpox and measles are propagable under the most favorable circumstances of personal cleanliness, and of a free perflation of pure air.

Fifth.—Typhoid fever may arise from a certain impurity of air, either engendered by deficient ventilation, or induced by a peculiar miasm belonging to a certain locality.

Sixth.—That the disease is divisable into four forms.

1. The mild, in which but slight disturbance obtains, either in the nervous, vascular, or secretory systems, and in which there is no local lesion of the digestive tube.

2. The local form, in which there is scarcely any perceptible constitutional disorder, but in which a destructive action is going on in the intestinal canal.

3. The grave form, in which there are profound lesions of innervation, of circulation, of secretion and excretion, and of Peyer's glands, unaccompanied by lenticular spots; and

4. The severe eruptive form, in which we have, either partial or very extensive rose-colored spots, accompanied by grave constitutional lesions.

In this form there may not always coëxist profound lesion of the alimentary tube.

Seventh.—That the severity of the attack bears no direct, or appreciable relation to the number, or extent of the eruptions. Nor can the converse proposition be maintained that the lenity of the seizure is marked by the profusion of the lenticular spots.

Eighth.—That typhoid fever is a constitutional disease; not dependent upon the local state of the bowels, and having no essential affinity to an exanthem.

Ninth.—That there is no demonstrable condition of the blood that will solve in the slightest degree, the problem of the rise, progress and termination of typhoid fever. There is no justifiable ground for such hæmatological speculations as some have most gratuitously indulged in, respecting the nature of typhoid fever. Neither the symptoms nor the morbid anatomy justify any inference that the blood is vitiated by any foreign impregnations, nor in any way altered, except in a consecutive manner, from the febrile condition, and from the local lesions, in this affection.

Tenth.—That there does not exist any tendency in typhoid fever to assume critical days—or to issue by any determinate mode, in convalescence. On the other hand, it is a fever of very indefinite duration—tedious, protracted, and uncertain in its termination.

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Case of Hydrophobia treated with Chloroform. By H. Hartshorne, M. D. (*Amer. Jour. Med. Sci., for Oct.*) The boy was thirteen years old. Was taken sick about six weeks after being bitten by a dog proved to behave as if rabid. Had high fever, which had no remission, and yet no characteristics of typhus or typhoid fever; he was not deaf; had no tympanitis; no petechiæ; but had throughout, excessive sensibility to impressions, particularly those of cold, and about the face; had a difficulty, at times incapability, of swallowing, caused by a spasm which made a violent respiration simultaneous with the attempt to swallow, and thus impeded the latter and endangered the passage of liquid into the windpipe; which symptom was constant, and belongs to no ordinary type of disease; had injections of laudanum, 3ss. or 3j., repeated again and again with no effect: and breathed chloroform for hours, with only short intermissions, with no more effect than to tranquillize him, and produce natural sleep, from which he was, once at least, roused by a return of wild delirium: and yet had no sign whatever of tetanus: no possibility of mania-a-potu: and very little, and only occasional complaint of pain: which pain, when it occurred, except in the first stage, was in the arm which had been bitten by the dog; had also salivation, constant watering of the eyes, and finally vomiting: and whose delirium was, until quelled, of a malicious and furious character, or one of dread, horror and distress: ending fatally at the end of the seventh day.

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Account of several Persons struck by Lightning, and the Means adopted to resusitate them. By R. L. Warren, M. D. (*South. Med. and Surg. Jour.*) On the third day of September, 1848, in the town of F——,

there were five ladies and one negress "*struck with tightning.*" These persons had attended church in the village, and were on their return home in the evening, when there arose a tremendous thunder-cloud which induced them to go into the house of one of the citizens for protection from the rain. The lightning was intensely vivid. These females, from a great fear of "*being struck,*" had scarcely huddled together on a bed in a room, near which stood a very tall oak tree, before it received the electric charge. Accompanying it was an explosion which resulted in completely prostrating the entire crowd.

I was immediately summoned to the spot. I immediately ordered large quantities of cold water to be thrown on their heads and in their faces, and, as soon as it could be procured, the vapor of *ammoniated alcohol* to be applied to the nostrils, which remedies had the happy effect of producing immediate resuscitation. I did not order cold water to be sprinkled on the face, but rather that "*pails-full*" should be thrown on the face and entire person—in short, the *cold douche* was prescribed. It appears that sprinkling had proven ineffectual previous to my arrival, which circumstance induced me to try the remedy in a more wholesale manner. All the patients the next morning were fully recovered from the shock, and were laboring under very little excitement, not more than might have been expected from the contusions produced by the pieces of timber that were shattered off from the walls of the house, and the incised wounds produced from the broken fragments of a large mirror that was suspended against the wall. (I might have mentioned that a large dog which lay on a large root of the tree under the house, with a block and chain fastened to him, was killed.) After the patients were resuscitated, tinct. opii was administered in anodyne doses, to allay excitement and irritability. Some of the patients were actually burned by the electric explosion. Whenever the fluid came in contact with a bad conductor a severely burnt spot was left; for instance, where the clothes were moistened by perspiration, and came in contact with the body, a burnt abrasion was left. One of the young ladies, who had a *gold* locket about her neck, was severely burned on her breast by its being dissolved. The negress had opened the window, and was standing facing the tree, perhaps not more than four feet from it—she was resuscitated with much more difficulty than any of the others; her shoulders, arms, forearms, sides, thighs and legs, were very nearly denuded.

All the patients, after reviving, complained of severe pain in the stomach; it was of a spasmodic nature, and was relieved by the anodyne treatment above mentioned.

The tree and the house were very much injured by the electricity.

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Hydatids of the Wrist and Hand. By D. A. Arter, M. D. (*Western Lancet.*) D. A. Arter, aged 28, free from scrofulous constitution, whilst dissecting a subject, dead from phthisis pulmonalis, in the winter of '41–2, inflicted a small wound in the joint of the thumb, which produced active inflammation of thewhole of one of the superior extremities, extending to the chest, which nearly proved fatal.

The disease was finally controlled and confined to the hand and wrist. About two and a half years ago a tumor or enlargement of the theca of the flexor muscle of the small finger made its appearance, commencing in the palm of the hand and extending under the annular ligament up the forearm, some eight inches in length. There was no discoloration of the integuments, the tumor was entirely indolent and gave a loud crepitant noise upon pressure.

Its contents could be readily pushed either backwards or forwards, so that one-half of the tumor would remain empty for a short time. The theca burst about six months ago, and formed a small orifice below the annular ligament, and discharged two hundred hydatids, with some three or four ounces of inodorous serum.

The hydatids were of all shapes and sizes. They were soft, elastic, of a

milk-white color, and retained their size when compressed. Since the discharge of these bodies, the hand and wrist have become comparatively well.

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CASE OF SEPARATION OF THE STOMACH FROM THE ŒSOPHAGUS.—By THOMAS M. FLINT. (*Med. Exam.*)

Prof. Dunglison.

Dear Sir:—By your request I furnish you the particulars of the case in which softening of the stomach was found to have occurred. The attending physician, who is a respectable graduate of this school, has given me the following statement of facts: "The patient was a male child; aged seven years; sick about three weeks; symptoms of worms were prominent—one was passed; cerebral symptoms followed, which terminated in death. Coma and unconsciousness were prominent symptoms for ten days previous to death. When roused from this state he would eat a small quantity of gruel. He was treated for worms and cerebral symptoms."

On the 4th inst., thirty-six hours after death, I opened the body in the presence of the attending physician and a member of this class. We carefully examined the intestines, beginning at the rectum and tracing the tube up to the connection of the duodenum with the stomach, without meeting with a worm of any kind; but noticed marked inflammation of the small intestines. We next directed our attention to the stomach itself, which, to our surprise, was found to be severed from its connection with the œsophagus, and its contents, a dark-brownish mucilaginous-like fluid, poured out into the cavity of the abdomen to the left of the spinal column. We were not prepared to meet with a lesion of this character, and could account for it only by the action of the gastric acids producing *ramollissement* of this organ after death. In this opinion we were confirmed by the appearance of the liver; for beside evident marks of acute inflammation the inferior edge of the left lobe, which had been in contact with the gastric fluid, was corroded and corrugated.

That you may have the opportunity of examining the case, I herewith deliver to you the stomach and liver taken from the patient at the post-mortem.

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NATURE AND SEAT OF CHOLERA.—By Prof. LAWSON. (*Western Lancet.*)

Without attempting to be very precise on this branch of the subject, we feel strongly inclined to believe that the disease under consideration is more nearly allied in pathology to certain forms of *fever*, than to the class of *cholera*. This opinion is by no means new; it has been advocated by several medical writers; and indeed it was one of the earliest opinions expressed by those who carefully investigated the subject. The able report on cholera, as it appeared at Bombay, in 1819, directed attention to the symptoms of *congestive typhus* as described by Dr. Armstrong, and adds, that there is not only a striking analogy between the first symptoms of that form of fever and those of cholera, but that the same remedies are applicable to both. Some have compared so-called cholera to malignant intermittent fever; and there seems, indeed, some ground for such a comparison, at least so far as the *congestion* is concerned. There is probably no positive evidence, however, to prove that the disease takes on distinctly either the remittent or intermittent types of fever; all that we now contend for is, the relationship between a congestive form of fever, and cholera; and whether that congestive form of fever does or does not manifest periodicity, is quite immaterial in the discussion of the question before us. A close examination will reveal a very striking analogy between the more prominent symptoms of cholera, and those which characterize some forms of congestive fever; and this analogy holds good not only in relation to the primary congestive stage, but it is equally manifest in the phenomena of reaction, when that condition is established. In confirmation of this opinion, we need only refer to the symptoms characterizing severe forms of congestive fever;

such as coldness of the extremities and surface; failure of the circulation and animal heat; vomiting and purging; sometimes spasms. Indeed, so nearly do these symptoms correspond in their outline, that a description of the one might, in many instances, be applied to the other. But what we especially desire to enforce in this connection is, that the general symptoms of the two forms of disease bear such a remarkable resemblance, that we are justified in regarding them as partaking more or less of the same natures; and consequently, that the disease called cholera does not really belong to that class, but is in truth more nearly allied to the class of fevers than to cholera.

This view of the nature of cholera is important, not only in a pathological sense, but also in its relation to treatment; for so long as the attention is directed exclusively to the alimentary canal as the absolute seat of the disease, so long will our remedial agents be addressed to the same organs; and thus, by a partial and incorrect consideration of the seat of the morbid action, the state of the general system is entirely overlooked, and the true nature of the disease mistaken, and remedial agents improperly employed.

SURGERY.

Case of Congenital Glossocele, or Hypertrophied Tongue.—By M. G. Delancey, M. D., U. S. N. (*Amer. Jour. Med. Sci.*) Miss Sarah Fernald, aged twenty, a native of Kittery Point, Maine, was born with her tongue protruding from her mouth. It had literally grown with her growth, and strengthened with her strength, until it became a constant nuisance to herself and a disgusting sight to the beholder. She is a finely formed, sprightly and intelligent girl; has never had any disease save this of the tongue, and a scrofulous ulcer of the submaxillary gland, which discharged for some time and then healed spontaneously. The legend her mother relates is, that when some seven months advanced with this child, she longed for pomegranates, which she had never seen except in a picture, and which desire continued with her till the birth of Sarah. Irreconcilable as it is with common reasoning, and incomprehensible, according to our present knowledge of the power of the mother's mind over the fœtus in utero, yet we cannot deny the fact, that strange impressions are made through the medium of the mother's fancy upon the unborn infant. The tongue of Sarah did, through infancy, and until amputation, retain the appearance of an open pomegranate,—the enlarged and diseased papillæ closely resembling the seeds of that fruit. I was requested to examine the case, with reference to the feasibility of an operation. I found, as I have described, a handsome, intelligent girl, with a tongue protruding (from upper teeth to apex) a little over four inches, circumference seven inches, and thickness at middle of tongue two inches—indeed the tongue was of nearly the same thickness from root to apex. A deep linear fissure occupied the dorsum of the tongue in its whole length. The protruded portion was quite dark, owing to the number of vesicles filled with blood; and the part in the cavity of the mouth was also covered with these vesicles, and enlarged papillæ, but in a lesser degree. The substance of the tongue was extremely hard, and scarcely susceptible of pain; and was constantly pouring out a profuse, viscid, and offensive exudation. The tongue could not be retained in the mouth except for a moment; as its intrusion filled the whole cavity of the fauces, and prevented respiration.

The inferior maxillary bone was natural in form, except at the symphysis, where the incisors and canine teeth were separated half an inch, and inclined outwards by the constant pressure and weight of the tongue. The lower teeth were covered with tartar, and rather loose in their sockets, and the lower lip everted on the chin.

She had never been able to masticate with her tongue in the mouth, and

consequently lived mostly upon fluids. She was subject to painful periodical swellings of the tongue, every six weeks or two months, during which time she would almost reach the point of starvation, from absolute impossibility to swallow any nourishment for a number of days. During these periodical turns (which had no connection with the menstrual discharge, the latter being always regular) profuse hemorrhage would sometimes take place from the tongue, which at these times looked, as she expressed it, as black as my hat. She could make herself understood, though her words were very thick, and given with a lisping utterance. My advice was requested in this painful case, with the promise that it would be acceded to in all things. I was prepared for such a contingency, by a knowledge of the operation, and success of my former preceptor, Dr. Thos. Harris of the U. S. Navy, now chief of the Bureau of Medicine and Surgery, Washington. A description, with a plate of Dr. Harris' case, may be found in the seventh volume of the *American Journal of the Medical Sciences*, Oct. number, 1830.* The similarity in both cases is remarkable; the principal difference exists in the one being a congenital disease, the other not. The plate of Dr. Harris completely represents the tongue of my patient, save the tartaric deposit: in other respects they are alike;—with a balance in favor of Miss Fernald on the score of youth and beauty.

I decided upon amputation, recollecting the difficulties Dr. Harris encountered, in his attempt at strangulation by ligature, and his failure so to do. Also, his urgent advice to avoid, by amputation, a painful and fruitless proceeding.

On the 30th of May last, assisted by Dr. Oliver, of Portsmouth, I operated in the following manner:—The patient being seated in a chair, her head supported by one assistant, and hands secured by others, I forcibly drew the tongue outwards and downwards by a strong forceps, commenced a ∧ incision with a bistoury on the left side, carried it to the median line a little inside of the upper incisors, turned and cut outwards.

Thus, with two strokes excising the part, which was of great density and hardness. A formidable jet of blood immediately issued from the dorsal and ranine arteries, which were, of course, preternaturally enlarged.

I tried to control the hemorrhage by torsion, which failed, as the arteries were so impacted in the surrounding substance that I could not draw them out. Compression was quite as unsuccessful; dossils of lint, wetted with iced alum water, were no better, and so I proceeded to tie the dorsal and ranine arteries, which I did without trouble, and thus effectually stopped the hemorrhage.

The patient all this time suffered so little pain, that the moment the arteries were secured she jumped up and ran to the mirror to see the effect of the operation. The ligatures were cut off close to the knot, hoping that in their course outward the suppuration might tend to lessen the great thickness of the tongue.

The flaps were now brought together, (the coagula having been carefully

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* On the 26th of May, 1835, another operation, similar to the one here mentioned, was performed by Dr. Harris upon the tongue of a young man, aged nineteen, from Tennessee, who had been induced to apply for relief, from having heard of the success of the first case. In this patient, the enlargement was congenital;—the tongue projected beyond the upper incisors, three inches—circumference six inches—vertical thickness, one inch and a half—of a violet color, hard and incompressible consistence, and covered with a dark slimy secretion. The deformity was so great, that he was obliged to wear constantly a silk handkerchief over his mouth, and around his neck. The result of the operation was complete; and the gentleman subsequently became a practitioner of medicine, in his native state. The details of this case, with descriptive plate, may be found in vol. 20th, *American Journal of the Medical Sciences*, 1837.

removed with iced alum water,) and secured with four interrupted sutures. When this was done, the tongue was of good shape, and no point of cut surface remained exposed. Length of tongue removed, two inches and three-quarters. For nine hours after the operation the tongue remained within the mouth; inflammation and swelling then set in and protruded it. The only dressing applied was a dossil of lint, wetted with ice-water. There was no secondary hemorrhage. On the sixth day three of the sutures were removed, and on the twentieth, complete union had taken place by the first intention. The turn of periodical inflammation had come round by this time, and the tongue became slightly swollen, and the submaxillary gland of the left side very much so. The application of half a dozen leeches with saline purging quickly subdued this attack. The patient had been put upon the tinct. of iodine, and it was continued with benefit.

On the 5th inst., Miss Fernald, for the first time in her life, chewed with the tongue in the mouth. It is now kept within the teeth, like any normal tongue, and protruded with slight difficulty. The exudation is very trifling—not sufficient to afford the slightest inconvenience, and altogether deprived of unpleasant odor. On the 10th inst. I had occasion to remove the lower incisor teeth, their horizontal projection having caused ulcers in the lower lip, which has now assumed its natural position, and completely closes the mouth. On the 25th of July Miss Fernald paid me a visit at the Navy Yard, and I take pleasure in saying, that a more comely looking girl, or one better pleased with her own altered condition, can rarely be found.

The fear of hemorrhage has deterred surgeons from amputating any considerable portion of the tongue. The recorded case of Dr. Harris, and the present one, are the only operations of the kind that I have any knowledge of, in the United States.

The tongue may be operated upon with as much safety as any other organ in the body, and its great vascularity ensures a more speedy union. But no operation by ligature should be attempted. The knife alone is to be relied upon, and the arteries being secured, and parts adjusted, as in the ∧ incision, very little need be feared from secondary hemorrhage.

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New Operation for the Radical Cure of Varicocele.—By Prof. S. D. Gross. (*Amer. Jour. Med. Sci.*) The following operation for the radical cure of varicocele I have performed eight times within the last few years. The patients were all young men of good constitution, and they all recovered without a single bad symptom. The cure, so far as I have been able to learn, promises to be permanent in every instance.

During the operation the patient may lie down, sit in a chair, or stand up, as may be most convenient. The scrotum, previously divested of hair, is rendered tense by grasping it behind with the left hand. A vertical incision, scarcely an inch in length, is made over the anterior part of the tumor, down to the enlarged veins, which are next carefully isolated from the accompanying duct, artery, and nerves, by a few touches with the point of the scalpel. This constitutes the first step of the operation. The second consists in passing a short, thick sewing needle—a No. 1 of the milliner, underneath two or three of the larger trunks, and winding around it a stout thread, either elliptically, or in the form of the figure 8. The ligature is drawn with great firmness, so as to indent the coats of the vessels, and put an immediate stop to the circulation. The operation is finished by closing the wound carefully with one or two sutures, or a few strips of court-plaster. The patient is now put to bed, the scrotum is supported with a silk handkerchief, and light diet is enjoined. At the end of twenty-four, or, at most, thirty-six hours, the blood in the constricted veins is sufficiently coagulated to justify their division and the removal of the needle. This is readily effected by insinuating a narrow, sharp-pointed bistoury underneath the vessels, with its back towards the needle.

Should symptoms of inflammation arise after the operation; or, in other words, should the parts become red, tender, and swollen, recourse must be had to antiphlogistics, and to the application of cold water, or solutions of acetate of lead and opium. The patient may usually sit up in five or six days, and in a few more he may be permitted to walk about. The little wound soon cicatrizes; and the induration, caused by the coagulation of the blood between the testis and the seat of the constriction, gradually disappears by absorption. The period required for this rarely exceeds a month.

The advantages of the above operation are, first, its perfect simplicity and the facility with which it may be executed; secondly, its freedom from pain and hemorrhage; thirdly, the certainty with which we may avoid injury to the spermatic artery, duct, and nerves; fourthly, the little inconvenience or suffering which the patient experiences after it has been performed; and fifthly, the rapidity of the cure. These considerations will, I think, be found sufficient to recommend this method to the favorable notice of practitioners. Most of the operations described in the books are complicated, severe, and dangerous.

It occasionally happens in this affection that the scrotum is very flabby and pendulous. When this is the case the cure will hardly be complete unless the surgeon retrenches the redundant structures. I have been obliged to resort to this expedient only once in my operations. A portion of scrotum, nearly of the size of a large hand, was excised with the scalpel, and the wound closed by the continued suture, which I consider far preferable, under such circumstances, to the interrupted or twisted.

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Successful Removal of large Bodies from Knee-joints. By Dr. Steadman. (*Amer. Jour. Med. Sci.*)—The patient was a man 43 years of age, confined in the House of Correction as a common drunkard. At the age of 17 he began to have swelling of the knees, with severe and constant pain, without any known cause. This continued for about three years, when he first discovered a moveable tumor in right knee, just above patella, which has continued to increase till the present time. A similar tumor soon after appeared in the left knee. These tumors have had the effect to impede walking, he being often suddenly seized with pain in the knee, and inability to move further, the tumors being always perceptible at these times. These tumors have increased with his age. Dr. S. operated upon the right knee, March 22d, and on the left, April 1st. In both cases the bodies were brought to the outside of knee, and being maintained there, the skin over them was drawn to one side, in order that the wound of the capsule of the joint might not be parallel with that of the surface, and an incision made upon them, by which they were at once set free. The wounds were united by the ethereal solution of gun-cotton, and there was not the slightest inflammatory action. At the expiration of his sentence, the patient walked with perfect ease.

The bodies were composed of fibrous and osseous tissues, in about equal proportion.

The first removed weighed			283 grs.
2d	"	"	257 "
The length of the first was			2 1-16th inch.
width	"	"	1 7-16th "
thickness	"	"	5-8th "
The length of the second was			2 3-8th "
width	"	"	1 1-16th "
thickness	"	"	9 1-16th "

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Aneurism—*Interesting from its locality.* By M. Z. Kreider, M. D. (*Ohio Med. and Sur. Jour.*)—George Hanstein, aged 48 years, stonecutter, presented himself for relief, June 27th, 1841. The following is the history of this case.

About twelve years ago, while engaged in turning a large granite block, one corner of the stone came in violent contact with the os pubis on the left side of the root of the penis. A stinging pain was felt for some time after the accident. A few days afterwards, a small pulsating tumor (about the size of a hazel-nut) was found to occupy the seat of the injury. This tumor very slowly enlarged ever since that time, until it attained the size of a large hen-egg. It has at no time been a source of much inconvenience. A week since the man went to bed as usual—about midnight he awakened suddenly, feeling a stinging pain about the place of the tumor, and putting down his hand to the part, was surprised to find that the tumor had disappeared. He soon, however, discovered that the scrotum was much enlarged, and that this enlargement was rapidly augmenting. The following are the dimensions of the scrotum at this time—length, two feet—circumference, near apex, seventeen inches—at middle, twenty-two inches. Upon making an incision into the scrotum upon the left side, a large quantity of partially coagulated arterial blood escaped. Finding that hemorrhage still continued, I dilated the wound upwards, and found the bleeding vessel to be a branch of the epigastric—and was the vessel which had been originally injured, forming an aneurism, whose walls giving way, had suffered the blood to escape and find its way into the scrotal sac. The vessel was secured by ligature—the coagula entirely removed from the scrotum, the wound closed by interrupted sutures and adhesive strips—some slight suppuration followed—but in a few days the parts healed, and the man speedily and perfectly recovered.

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Fibrous Tumor attached to Superior Maxillary Bone, with Polypus of the Nose—*Ligature of both Primitive Carotids—Removal of Tumor—Recovery of Patient.* By Prof. P. F. Eve. (*Southern Med. and Sur. Jour.*)—In July, 1835, I ligated the left carotid artery, removed a polypus from the left nostril, and dissected from the cheek of the same side, a fibrous tumor which was found attached to the outer surface of the left superior maxillary bone. This foreign growth had an osseous attachment, and was about the size of a guinea-egg. The patient was a youth aged 18 years. His parents inhabited a sickly district of South Carolina, and had recently lost five children; this, their last one, was of a cachectic habit. The polypus returned the next winter, and was removed the second time. In 1836, the patient visited New-York to consult Dr. Mott, who ligated the right carotid. He is now a man of family, managing a large property. I saw him a few days ago, and the only evidence remaining of disease about him, was a slight fulness in the left cheek. Twelve years have now elapsed, and he has experienced no unpleasant effects from the ligature to both primitive carotid arteries.

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Removal of nearly the whole Right Superior Maxillary Bone for Polypus of the Antrum—*Recovery of the patient.*—May, 1836, Mr. J. S., aged 21, was operated upon the third time for a large fibrous polypus of the right antrum highmorianum. In two previous attempts the foreign growth had been attacked in the nostril, the antrum was opened, and the soft palate slit up, but without succeeding in its entire removal. In the third operation, a flap was made by two incisions through the cheek and lip, this reflected over the eye, the maxillary bone of the right side thus exposed was separated between its first and second incisor teeth, then the nasal process of the same bone divided transversely, after which the alveolar processes with six teeth (the wisdom tooth not being developed) was gradually detached. The palatine process of the superior maxilla, and the palatine plate of the palate-bone were also removed, and as the fibrous tumor could not yet be pulled away, even by great force, it was separated by curved scissors from the basilar processes of the occipital and sphenoidal bones, and also from the internal plate of the pterygoid process. The mass removed weighed three ounces three and a half drachms. Three sutures were applied to the palate and five to the

face in dressing the wound. The latter united, but the former did not. The patient entirely recovered: I have seen him several times since the operation, and believe he is still living in one of the upper counties of this State.—*Ibid.*

Foreign Bodies in the Rectum. By T. M. Harris, M. D. (*Western Journal of Medicine.*)—On the 19th of May, 1846, I was summoned to attend a young Dutchman in this neighborhood, and received the following history of his case:—

He had been suffering from an attack of piles, and having been informed that the disease could be cured by introducing the neck of a well-greased bottle containing some hot spirits of turpentine, he undertook to prove the remedy. But unfortunately, using nothing larger than a half-pint flask, and having, as I suppose, a more than ordinary capacious outlet to the alimentary canal, the flask slipped in, and the sphincter closed upon it.

Here is a dilemma—a man with a half-pint flask in his rectum seeks relief; and what is to be done? Notwithstanding the case borders a little upon the ludicrous, it became, to me, a subject of most serious and anxious concern. At length, however, I resolved upon a plan, and accordingly went to a blacksmith and had a pair of forceps made somewhat after the fashion of the obstetrical instrument, with blades about seven inches long, by about three-fourths of an inch wide, and handles eight or ten inches long. These being prepared, and the blades well greased, I introduced a blade at a time so as to enclose the bottle, locked the instrument, and commenced my efforts at extraction. But the blunt end or bottom of the bottle, presenting, I soon satisfied myself that it would be no easy task to effect its removal. At length by the force of my efforts, I smashed the flask in fragments. Having no further use for my forceps, I laid them aside and set myself carefully to work, removing it, a piece at a time, with my fingers. This I completely accomplished, after laboring faithfully for about three hours. I then washed the rectum by throwing up large quantities of warm water; ordered a dose of sulph. magnesia, and in three days had the satisfaction of seeing my patient about his employment.

On the 29th January, 1847, I was called to see the same patient, and informed that a similar mishap had befallen him, the body now introduced being a beet. I made an examination, and could trace with the finger the large end of a beet of such dimensions as to cause the utmost astonishment; and to increase the difficulties of the case, it had been retained more than 48 hours, the patient having entertained the intention of dying like a hero, without disclosing his condition; from which determination, however, the intensity of his sufferings forced him to depart.

There was now a good deal of tumefaction and tenderness about the anus; and very great tenderness of the abdomen generally—vomiting had set in. I again introduced my forceps, but with great difficulty, on account of the tumefaction and soreness of the parts, and soon found that I could not make the necessary extractive efforts wthout having my forceps slip off: the patient was also exceedingly irritable, and could not endure the necessary force. I now took my forceps to the smith, had the width of the blades reduced one-fourth, and the points turned in so as to form a hook, obtained two or three assistants, and returned to the novel operation.

Having premised a free bleeding and the hot bath, so as to obtain a good degree of relaxation, I administered 35 drops of the tinct. of opium, and having placed my patient on his knees and strapped him down tightly over some chairs, I again introduced my forceps, and quickly succeeded in bringing away a beet nearly seven inches in length, and in its largest diameter about three and a half inches.

It had evidently been selected by my patient on account of its size, in order that it might be impossible for it to be taken in; and feeling thus secure, he had introduced the small end, and pressed down upon it with his whole weight.

I now administered injections, and laxative doses, and restricted my patient to a low diet for two or three days, when he again resumed his employment.

MIDWIFERY.

FALLOPIAN PREGNANCY.—*Death resulting from Rupture of the Ovum.* By D. D. MARVIN, M. D. (*Annalist.*)—A lady of thirty-five years of age, and of good constitution, consulted me on the 2d of May. For several days she had been troubled with uterine contractions and pains in the back, accompanied with a dragging sensation about the loins, occurring paroxysmally with great severity, and aggravated by the erect posture. There was also a uterine discharge, sometimes small in quantity, but at other times more copious, varying from a brown to a purple hue; sometimes consisting principally of mucous and at others free from it, and either sanious or sanguineous in its character.

Sixteen years since she was delivered of her only child, and, though a married woman, had never been pregnant since. During all this period she had enjoyed uninterrupted menstrual regularity until within the last two months previous to her death, when the discharge existed which has been already mentioned as having occurred, and which, indeed, would have disguised the periodical flow if it had taken place, by mingling with it.

Two or three weeks after my first visit she began to complain of a tumor in the right iliac region, occupying the site of the caput coli, attended with pains in the corresponding side and leg. It could be distinctly felt when the colon was distended with fæces, but not when the stomach was empty and flaccid. This circumstance led to the belief that it consisted of fæcal accumulations in the intestine.

These symptoms were combatted by a variety of means suited to the occasion, and the os uteri was examined by the aid of a speculum and found to be slightly ulcerated. The solution of nitrate of silver, of the strength of a drachm to the ounce of water, was applied to the diseased surface every few days, with decided advantage to the condition of the part, and with the apparent effect of subduing the uterine pains and of diminishing the discharge for a period of twenty days. But on the 16th of June, after an evacuation from the bowels, accompanied with considerable effort, she complained that "she felt herself hurt," and was immediately attacked with a recurrence of the uterine pains of great violence, followed by prostration, nausea, pallor, cold sweats, pains in the right side and leg, and complete collapse. The use of restoratives seemed to be attended with decided benefit, and she partially revived; but at four, A. M., again fainted, and though entirely conscious, sunk rapidly and died.

The manner of her death reminded me forcibly of the sinking from sudden hemorrhage, but, on the other hand, there was no discharge whatever of blood externally, yet so impressed was I with the idea, that I did not hesitate to express to my friend, Dr. Cox, who was present on the occasion, that the autopsy would reveal an internal hemorrhage as the immediate cause of death. Yet the real source of the hemorrhage was not anticipated.

Autopsy, twelve hours after death. The cavity of the abdomen contained five and a half pints of blood. Upon searching for the source of it, it was found to have proceeded from a rupture of the membranes of an ovum of two months' development, contained in the right fallopian tube, about midway of its course. Through this rent protruded a portion of placenta, of the usual tufted appearance, about three-fourths of an inch in length and half an inch in diameter. From this little protrusion poured forth the fatal hemorrhage; and to the rupture of the delicate envelope of the ovum, occasioned in all probability by an excessive effort, must be attributed the cause of death.

The ovum measured three inches and nine lines in length, two inches and

nine lines in breadth, and one inch and nine lines in thickness. It contained a small fœtus, visible through the transparent membranes; these being left intact, its dimensions could not be accurately ascertained. Its age must have been somewhat less than two months, the last menstruation having occurred sixty days previous to the day of her death, unless, indeed, under such extraordinary circumstances, menstruation may have taken place subsequently to impregnation.

The uterus measured four inches in length, three inches and three lines in breadth, and one inch and nine lines in thickness. Its inner surface presents an admirable view of the decidua, with which it is lined. The os uteri had a granulated appearance, and the superficial ulceration had nearly healed.

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Cæsarean Section.—By W. H. Byford. (*Western Lancet.*)—The subject of this operation was the wife of a farmer, aged 26, in labor with her third child. She had been in labor 68 hours when Dr. B. was called to attend her. On examination learned that "the waters had been discharged over 48 hours, pulse 110, face flushed, and the pains were very hard and frequent, which had been the case since the first commencement of the labor. Upon examination per vaginum, a large osseous tumor was found springing from the plain and tuberosity of the ischium, nearly filling up the pelvis, leaving only one inch and a half space between its surface and the opposite ischiatic plain, and extending within the same distance of the sacrum, allowing of more space in the region of the right ischiatic notch.

"The fingers could be made to pass up over the tumor to the linea ilio-pectinea which might be felt, as also the sacro-iliac junction. When the labia were widely separated the mucous membrane of the valve was seen to form a continuous covering to the tumor as far as accessible to vision. No amount of pressure compatible with the integrity of the soft parts would make any impression on the tumor, or in the least alter its position.

"The head of the child was found at the superior strait pressing firmly down upon the tumor with the occiput to the symphisis pubis."

A consultation was now called. The practicability of craniotomy was first discussed.

"But it seemed evident to us all that in consequence of the smallness of the opening through the pelvis and the distance which the child's head was removed from the external outlet we could not lessen the child sufficiently to bring it through, hence hysterotomy seemed the only possible means of relief, and even without further loss of time, this afforded but small hopes of success from the unfavorable state of the patient."

Having satisfied himself of the death of the fœtus, Dr. B. commenced the operation by "a free incision in a line with the right semilunaris, extending from an inch below a line drawn horizontally from the umbilicus seven inches in length towards the pubis." [The reason he assigns for operating in the semilunaris, instead of the linea alba, as is generally practised, was that "the uterus in consequence of its right oblique position in this case offered its side to the knife in the last named place."] The remaining steps of the operation were conducted as usual. On laying open the uterus a fœtus weighing nine pounds was withdrawn, "immediately after which the placenta and membranes

were removed before the uterus had contracted much. It very soon assumed the dimensions it possesses post partem in ordinary cases.

"Pressure was then kept up on each lip of the wound from the time the external incision was completed, against the uterine parietes, in order to prevent the extravasated blood from entering the peritoneal sac. The object of the operation being thus accomplished and hemorrhage which was very inconsiderable, having ceased, the lips of the external wound were brought into complete apposition by means of four stitches and adhesive strips; except a small part at the lower angle which was left open for the escape of any discharges found in the wound itself. A compress over the wound and a roller around the abdomen completed the whole process, which occupied about fifteen minutes.

"The condition of the patient seemed to be very little altered, the pulse continuing about the same in frequency as before the operation. The tumor was again examined and presented the same characters as before. We prescribed

℞ Pulv. Dov. gr. viii.
Sulph. Morph. gr. ¼.

every four hours; take no nourishment but bread and water.

At 8 A. M. the 17th, twelve hours after operation; slept some during the night, rested without pain until towards morning; pulse 120, rather hard and full. Abdomen a little swollen and tender, particularly so on the left side; complains of oppression at the heart; and pain, though slight all over the left side and lower part of the abdomen. Bled to ℥ xvi. from the arm. The abdomen to be fomented over the seat of pain and soreness. Continue medicine. The venesection relieved the oppression, pain and tenderness very much and filled our patient with gratitude. The pulse fell to 110 and was softer.

At 6 P. M. swelling, pain, tenderness, and oppression have returned with the same frequency of the pulse which was decidedly hard. Bled to ℥ xx. with marked relief to all symptoms—ordered to continue the medicine, fomentation, etc.

At 8 A. M. the 18th. To all appearance better; had a tolerable night's sleep, excepting a short time occupied by nausea and slight vomiting, pulse 110 soft, skin moist, has urinated four times since operation without difficulty, some coagulated blood passed from the vagina through the night with ordinary after pains; has had no alvine discharge since operation; ordered to discontinue opiates and take calomel grs. xx. to be followed in four hours with decoct. Senna and Sulph. Mag.

At 5 P. M. the medicines operated three times copiously, bringing away dark fluid stools. The patient much worse; her pulse 140, weak; surface bathed in cold clammy perspiration; extremities cold; vomiting great; listlessness and apathy; countenance pale; great oppression of breathing, in short, sinking very rapidly. Doctor Conyngton consented to stay with her through the night. Despite all means of the most energetic character that he could employ, such as warmth and counter-irritants to the extremities, brandy and laudanum, etc., she continued to sink and expired about 8 A. M., on the 19th.

During the last twenty-four hours her abdomen was not swollen, tender, nor painful, but the peculiar oppression about the heart continued until death.

The patient had a node on the left tibia and the right was irregular throughout the surface of the superior third.

The first labor was not more than ordinarily severe. The second, however,

which occurred on the 28th August, 1845, was unusually tedious and painful. There has been pain in the left side of the pelvis ever since that confinement, which was augmented during her last pregnancy.

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Obstructed Labor—*Caused by Tumors.* (Southern Med. and Sur. Jour. for Aug.)—Dr. W. P. Parker has communicated two cases, with remarks, bearing upon this subject. The first a primipara about 18 years old, of nervous temperament. She had been in labor 15 hours, and the first stage was complete—pains violent and sufferings intense. She was becoming fast exhausted from the violent action of the uterus and abdominal muscles, pains of labor, tenesmus, etc. Upon examination, *per vaginum*, the vaginal canal was found much impinged upon by a large tumor lying against its posterior wall —upon examination, *per rectum*, its contents were found to be composed of "hard balls of excrementitious matter, rough, and gritty to the touch, as if it were fragments of stone." By means of a scoop these were removed one by one, and a short time afterwards the labor was safely completed.

The second a multipara, aged about 35 years, at the full period of gestation, in labor about six days. Abdomen pendulous—the gravid uterus, with the head of the child over in front of the symphysis pubis, entirely without the pelvis—the pelvis filled by a tumor, (probably ovarian,) occupying the recto-vaginal septum, which gave but slight evidence of fluctuation, by insinuating the finger between the urethra and tumor the os uteri could with great difficulty be felt—fully dilated. After some delay in obtaining counsel, it was determined on to puncture the tumor, which was accordingly done—twelve pounds of a yellowish fluid, resembling thin honey, flowed, containing dark-colored shreds and flocculi. The gravid uterus was then raised over the os pubis into the pelvis. A few minutes after which the labor was completed in safety, both to mother and infant. The patient had a rapid convalescence—and eighteen months after evinced no signs of a return of the tumor.

In his remarks, Dr. P. says—

These obstacles do not at all interfere with the first stage of labor; for however large and unyielding be the tumor, the mouth of the womb continues to dilate with as much uniformity as ever, except in cases where the uterus itself be involved in the disease.

The immediate danger is in direct proportion to the resistance and the violent action of the uterus and abdominal muscles, for if the resistance and action both be great, there will be great danger of the parietes of the uterus being lacerated, and thus producing fatal consequences; besides this, the powerful action of this organ and the great pain produced thereby, hasten exhaustion, and thus the vital forces escape, pain by pain, as the electric spark reduces the prime conductor.

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Spontaneous Evolution of the Fœtus, By N. W. Cole, M. D. (*New-Jersey Medical Reporter.*—On the evening of the 10th of October, I received a message from my friend Dr. Haines, to visit with him a female in labor of her eleventh child, to whom he had been called in the afternoon, and to bring with me my instruments. The doctor informed me that upon his arrival he found one child born, and that another was presenting, with the shoulder and right arm protruding. He stated also that he had made several unsuccessful attempts to turn. Upon examination I found everything as above stated.

The labor pains had entirely ceased, from the time of the birth of the first child. Its waters evacuated, and the uterus was closely and rigidly contracted around its body, so much so that, after repeated efforts, I was obliged to abandon all idea of turning without using more force than would be justifiable.

While preparing the necessary instruments for taking the child away, (it was dead beyond all doubt—there being no pulsation from the time of my arrival,) the mother's pains returned; and Dr. Haines, who was sitting with her, observed the child to be lower down. I immediately made an examination, and found some change was taking place. Its body seemed to descend, and I distinctly felt its shoulder ascend. In less than five minutes from the return of the pains, it had made a complete somerset. The feet and breech came down, and the head followed without any difficulty. It was healthy and of the average size.

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Case of Superfœtation and Mixed Birth. By Thomas B. Taylor, M.D. (*New-Orleans Medical and Surgical Journal.*)—The following remarkable case of superfœtation and mixed birth occurred in this neighborhood a few months since; and as there are but few cases of a similar character on record, and as this differs in some of its features from any other, I have concluded to report it, provided you may deem it worthy of a place in your Journal.

Clarissa, a negress, the property of Mr. A. Knox, aged about 35 years, in May last, was delivered of twins; one a mulatto, and the other a negro child. She had been married to a negro man on the plantation, of delicate constitution, for many years, and had had several children by him. Her menstrual discharge had occurred for several months previous to her pregnancy, at about the full of the moon. She felt herself pregnant by her customary signs, about the middle of the month; and, to confirm her suspicions, at the next period it did not appear. About three weeks from the time she first felt she had conceived, and one week after her menses had failed to appear, she had sexual intercourse *once* with a white man. She slept with her husband every night—had connection with him the night before she had intercourse with the white man, but not on the same night. At their birth the mulatto child bore marks of being at least three weeks younger than the negro; thus sustaining the woman in her suppositions, as to the time between her two conceptions. This woman is a faithful servant, and I have every reason to believe she told the truth in relating the circumstances of her case to me.

MATERIA MEDICA AND TOXICOLOGY.

Animal Charcoal as an Antidote. By B. H. Rand, M. D. (*Medical Examiner.*) After mentioning the different substances which have been proposed by writers as general antidotes, worthy of being resorted to in most cases of poisoning, the author mentions the experiments of Dr. Garrod, first published in the Transactions of the Medical Society of London, *New Series*, vol. 1st, he then alludes to those of MM. Wapen, Holpoff, Warrington, and others, on the same subject; after which he details the following among numerous others which he instituted to determine the antidotal value of this substance.

1. One grain of pure morphia was swallowed with about an ounce of pure animal charcoal, in warm water; no narcotic symptoms supervened, but there was some gastric irritation, which subsided in the course of the day.

2. One grain of sulphate of morphia was digested with pure animal char-

coal until all bitterness was removed; the liquid, filtered off and swallowed, produced no effect.

3. Ten grains of extract of belladonna were swallowed with two drachms of the charcoal; there followed vertigo, dilated pupils, dimness of vision, exceeding dryness of the throat, and desire to sleep, all of which symptoms were relieved by the spontaneous vomiting of a very acid matter and the use of stimuli. The pupil remained dilated through part of the next day.

4. The last experiment was repeated, an antacid having been premised, and the proportion of charcoal being doubled. Some dryness of the throat followed, but with no other symptom of the influence of the drug.

5. Fifteen grains of powdered digitalis were taken, with three drachms of the animal charcoal, without the slightest disturbance of the functions.

6. Twelve drops of the officinal hydrocyanic acid were swallowed, with two drachms of the pure charcoal, without a sedative result.

7. One grain of strychnia, dissolved by the aid of a drop of chlorohydric acid, was digested with animal charcoal until all bitterness was removed. The solution, filtered and swallowed, produced no effect; a similar solution evaporated and tested with nitric acid gave no red tinge.

8. One grain of strychnia was swallowed, with an ounce of pure animal charcoal; no effects due to the strychnia could be perceived.

9. The purgative extracts were next tried, but produced no effect when sufficient animal charcoal was taken.

10. Camphor and musk were removed by animal charcoal from their tinctures, so far that they did not precipitate on the addition of water.

11. Phosphorus was removed from its ethereal solution by the charcoal.

12. Iodine was so far removed from its tincture and compound solution as not to strike a blue color with starch, and the iodine could not be liberated from the animal charcoal at a red heat.

13. Arsenious acid and a solution of arsenite of potassa were apparently unaffected, either in the hot or cold solution, by animal charcoal. This result, although it agrees with those of MM. Wapen and Graham, does not with the observations of Dr. Garrod, who states that animal charcoal "has greater power of removing arsenic from its solution than the hydrated sesquioxyde of iron."

14. A solution of the bichloride of mercury, being treated with animal charcoal, gave, on filtration, no precipitate with ammonia.

It has been said that the action of the charcoal is purely mechanical, enveloping the poison, thus protecting the coats of the stomach from its action, and prevented the absorption. To this Dr. Rand replies, that this may be true as regards arsenic, which is not removed from its solutions by animal charcoal, and such is the result of the experiments of Orfila and Christison; but the case of the alkaloids is different—they are wholly removed from their solutions by animal charcoal entering into a firm union with them. This, however, is not the case with vegetable charcoal and lamp-black, which are nearly or quite useless in counteracting poisons. When given as an antidote, animal charcoal should be mixed with warm water as hot as the patient can swallow, as its action is much aided by an elevated temperature. Dr. Rand thinks we are warranted by the present state of our knowledge on this subject, in drawing the following conclusions:

1st. That animal charcoal has the power of withdrawing, when used at a proper temperature and in sufficient quantity, most, if not all, known vegetable and animal poisonous principles, and certain mineral poisons from their solutions.

2d. That, given at the same time with, or shortly after these poisons have been swallowed, it prevents their deleterious action.

3d. That, given in cases of poisoning, it can exert no injurious influence, but, on the other hand, promotes vomiting, entangles the poison and protects the coats of the stomach against it.

4th. That, although it cannot be substituted for the usual antidotes in poisoning by mineral substances, yet it may be usefully employed in conjunction with them or in their absence.

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Poisoning by Cocculus Indicus. By H Rosenkrans, M. D. (*North Western Medical and Surgical Journal.*)—On Thursday last we witnessed in our town the effects of poisoning with Cocculus Indicus on a man about forty years of age; he was a stranger who came to our town the day previous to taking the poison. Being an inebriate, he found and drank a liquid containing it, which had been left in a horse stable, where it had been prepared in whiskey to kill lice. It was early in the day that he took the fatal draught, and before he had taken anything in his stomach. After drinking the poison he felt immediately alarmed, and complained of sickness at the stomach, and had tremor; he then started from the stable, and, after walking a few rods, fell in the street, violently convulsed, and delirious, both during and after the paroxysm; a second and third fit of convulsions, like the first, followed at short intervals. This last convulsive fit left him in a state of deep coma, in which condition he remained till death, which followed within an hour after the draught had been taken.

Post Mortem.—Stomach tinged yellow; mucous membrane slightly contracted; heart and lungs filled with dark fluid blood. The brain was not examined, yet from the congested face and eyes and the deep coma, we had good reason to conclude the brain was deeply congested. The examination took place five hours after death. A want of time prevented the inspection of the brain.

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Poisoning by Arsenic.—*Successfully treated with Calcined Magnesia.*—Dr. E. Bissel, of Conn., mentions in the American Jour. of Med. Sci. a case of poisoning by arsenic. The patient took one scruple with the intention of committing suicide. Two hours after it was swallowed, Dr. B. saw his patient; administered an emetic of sulph. zinc, which operated without any relief; his pulse was 130 per minute, small and wiry; there existed great constriction and dryness of the fauces, agonizing and burning pain in the stomach, etc. Dr. B. was now induced to try the antidotal power of calcined magnesia. Accordingly one drachm in a little milk was ordered every hour. At this time his pulse was 150 per minute, and the unfavorable symptoms were continually increasing; the right hand was completely paralyzed. Immediately after the first dose of the magnesia the patient appeared relieved, each successive dose produced the most surprising and marked mitigation of the unfavorable symptoms. Twelve hours after, the right hand had recovered its power, and the patient's pulse had fallen to 85 per minute; he had dozed freely during the intervals of taking his medicine; the magnesia was continued in the same dose every three hours; light nourishment was allowed and the patient soon after completely recovered. Since Prof. Peter, of Transylvania University, first published his experiments on, and more particularly called the attention of the profession to, magnesia as an antidote, several

cases have been reported in American journals which tend to illustrate its beneficial effects. Dr. Taylor, in his recent work on poisons, states that upon arsenic in powder, as it is almost universally taken, magnesia has no effect as an antidote; and if it acts beneficially, it must be by enveloping the particles of the poison, and mechanically preventing their contact with the mucous membrane of the stomach. This opinion is founded upon the result of a series of experiments made with the best magnesia of the shops, and intended to ascertain its value as an antidote. We may also state that Dr. Christison places but very little value upon it as an antidote.

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On Chinoidine. By J. S. Unzicker, M. D. (*Western Lancet.*)—Chinoidine has been for several years past extensively used in Germany, but up to this time has not been generally known in this country.

It is a resinous substance, and was first discovered and separated from the mother liquor of sulph. quinine, by Sertuerner, a chemist. There are two kinds in commerce, the pure and impure. The genuine is hard, and has a smooth, glossy break, like the hepatic aloes, which it resembles in color. It is transported in oblong flat lumps weighing about one pound each, wrapped in wax paper; will dissolve perfectly in dilute sulphuric acid, alcohol and ether, forming a clear tincture of a brown color.

It is insoluble in cold, but scantily soluble in warm water, imparting to the latter a strongly bitter taste.

The adulterated comes in jars, and is soft; will only partly dissolve in alcohol and ether, not forming a clear tincture like the other.

Chinoidine has been analyzed by a number of chemists, but as yet no satisfactory results obtained. It contains, according to Liebig, identically the same composition as quinine, but differs only in form, one being crystalline, the other not, and therefore he terms it the amorphous quinine. Chemical investigations, as far as they have extended, have thrown an interesting light upon the testimonies borne to the efficacy of chinoidine in the treatment of intermittent fevers; and there is no doubt in my mind, that the amorphous, if prescribed in its pure state, like the crystalline quinia, will produce the same effect on the animal organism, only that the effects of the former are more lasting.

I have used chinoidine for the last three years more extensively than quinine, and on an average with better success, especially in cases of long standing. In a number of obstinate cases of long standing, who came here from the Wabash country, quinine was first given without any effect. I then gave the chinoidine, which not only checked the paroxysms, but no relapse followed afterwards.

From the experience which I had during the above time with this remedy, I think the return of the fever was one third less than when I used the quinine. It is particularly suited in cases where the digestive organs are not much debilitated. My mode of giving it is thus:—℞. Chinoidine, gr. xij.; rad. ipecac., gr. j.; morph. acet., gr. 1-4. Mix, and make into six pills, to be given in two doses, two hours previous to the chills. Some German physicians prefer to give the chinoidine in combination with cremor tartar and cloves, in the form of pills.

This I found would have the same effect as that of many grains of quinine with the same combination. After the chills were stopped, I would then give a teaspoonful of the tincture (℥j. to ℥j. of alcohol) from two to three times daily in some claret wine, for several days afterwards.

It has been said by some, that the effects of chinoidine depended on the quantity of chinine and cinchonine it contained. This is an error; for suppose it did contain some chinine and cinchonine, how much could there be in twelve grains of chinoidine? Surely not half a grain of each! and would they have

produced the effect above described? Certainly not. Many, as well as myself, have labored under this mistake, until they have learned to distinguish between the pure and impure article, for if it is pure the results will be alike.

Chinoidine will undoubtedly, in time, become the great remedy of practitioners in the West; for when we consider the high price of quinine, $3 per ounce, and chinoidine at 40 cents per ounce, and besides a more effectual remedy than the former, no doubt is left of its adoption into general use.

MISCELLANEA.

ANÆSTHETIC AGENTS.—*Chloroform.* The Journals, especially the foreign ones, continue to give a prominent place to the various experiments with, and accidents from chloroform and other anæsthetic agents. There is a reaction going on against the use of these agents which, we are confident, will be productive of good. It cannot be that articles so powerful can be used on every trivial occasion, and without discrimination, without occasionally producing the most disastrous results. If only one case in a thousand, or even in ten thousand, of artificial anæsthesia, proves fatal, it should make us extremely cautious in our administration of the substances that produce it. We have been, for some time, among those who believe that neither ether nor chloroform should be used, unless in cases involving an operation or condition which may endanger life, and then with great caution. This, we opine, will ere long be the almost universal belief and practice of the profession. It may be that we are too fearful; we hope we are. If used only in the limited number of cases included in the above restriction, their discovery must still be regarded as one of the greatest and happiest events of modern times.

The editor of the Am. Jour. of Medical Sciences has collected in his October No., most of the articles and facts which have been published during the preceding three months. No less than six cases of death are reported, besides one of fatal hemorrhage from the lungs, resulting from the inhalation of chloroform. In four of the cases, the death was almost instantaneous; in one, the patient, a man, lingered in convulsions for forty-eight hours, and in the other the circumstances of death are not stated. The details of two examinations, *post mortem*, are given, one by M. Gorre, Surgeon-in-chief to the Hospital of Boulogne, and in the other, Mr. Badger, a Solicitor of Rotherham, Yorkshire, was the sufferer. In M. Gorre's case the most remarkable appearance was that of bubbles of air in the veins, wherever divided. The heart is described as "excessively flaccid, of the usual size, right and left cavities absolutely empty. The blood "*was literally as black as ink.*"

In his remarks upon this case, M. Gorre uses the following language:—"Chloroform in certain kinds of constitution, *which it is absolutely impossible for the man of science to recognise*, may cause death with a lightning-like rapidity. Even in experienced hands, there is no certain safeguard against the unfortunate consequences of this agent, which only too well justify the words applied by M. Flourens to chloroform, "*a marvellous and terrible agent.*"

Mr. Badger applied to Mr. Robinson, a distinguished dentist in London, to have some teeth extracted. Mr. R. stated in his evidence that he had administered anæsthetic agents at least three thousand times. A drachm and a half of chloroform was put on a sponge, which was not held close to the mouth or face. After inhaling about a minute, the patient requested that it should be made stronger. Before this could be done, his head and hands dropped—he was dead. Mr. Badger was a stout muscular man, and there was no reason to suppose that he was suffering under any organic disease.

The lungs were healthy and crepitant, but short and small. The heart was paler than usual, flaccid, not enlarged—the left ventricle interspersed with fatty degenerescence. The liver weighed *eight pounds*. There were dark grumous clots of blood in both ventricles. Although there was organic disease in this case, yet the patient was described as a healthy muscular young man, "who had suffered from no difficulty of breathing, or any other apparent disease."

In numerous cases referred to, the effects of inhalation were very unpleasant without being fatal. These should be borne in mind by way of caution. One case of tetanus successfully treated by chloroform is quoted from the London Lancet, and the same article has recently been used, but unsuccessfully, in hydrophobia.

The principal novelty connected with anæsthetic agents, is the experiments of Mr. Nunnely and Prof. Simpson, to produce partial or local loss of sensation. By applying chloroform, either in vapor or substance, to the finger or hand, for example, a burning, stinging sensation is soon produced, and the part becomes somewhat benumbed. We cannot detail the experiments. It is sufficient to say, that while they were perfectly successful upon *frogs*, they were far from being so upon the human subject. Dr. Arnott, of Brighton, recommends *cold* as a means of producing local anæsthesia. He says that "a temperature ranging between 5 and 20 degs., Fahr., (which can easily be produced by the common frigorific mixture of ice and salt,) will produce complete anæsthesia of the skin in two or three minutes." It is necessary to examine the skin from time to time, and to stop short of actual congelation. These experiments, while they may disappoint the high-raised expectations of some, will no doubt lead to useful results. We shall endeavor to keep up with the progress of medical opinion on this subject.—*Ohio Med. and Surgical Journal.*

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Emigrants, Mortality of, and Statistics.—From an interesting letter on this subject communicated to us by its author, Dr. T. Stratton, R. N., it appears that the total number of emigrants who embarked for Canada, during the year 1847, from Scotland, England, Ireland and Germany, was 98,106, of whom 13,365 died.

Number that died on the passage,	5,293
Admitted into Grosse Isle Quarantine Hospital 8,563, of whom died,	3,452
Died in Quebec Marine and Emigrant Hospital and in the City of Quebec, up to 9th October,	1,041
Died in Montreal Emigrant Hospital and in the City of Montreal up to 1st November,	3,579
Total deaths,	13,365

Up to the 1st of November, and as far inland as Montreal, one emigrant in every seven had died; many of those who passed on from Montreal, sickened and died at one or other of the different places on the route, "so that it is underrating the mortality to say of those who left Britain, one person in every five was dead at the end of a year."—*Brit. Amer. Journ. of Medical. Science.*

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Starling Medical College.—Lyne Starling, Esq., has recently added $5000 to the previous $30,000, given to the Starling Medical College, making in all, $35,000, to enable the Trustees to erect a college and hospital after the plan submitted by R. A. Sheldon, Esq., Architect, of New-York city. The work upon the foundation will soon be commenced, and the building will be when finished, the most complete, in all its parts and accommodations, of any which we have ever seen. It will consist of a centre and two wings, the whole 135 feet in length, and the centre 68 feet front by about 100 feet deep.

There will be three lecture rooms capable of seating about 400 persons each, and ample hospital room for from thirty to fifty beds. The whole will be heated by furnaces, and amply supplied with water. The building is to be irregular in its plan, securing abundant light and ventilation, and will be, when completed, an ornament to the city and state.

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NITRATE OF SILVER.—We are often called on by physicians to point a stick of lunar caustic for convenient use. Several modes are in use: by solution, by mechanical force, and by casting in a mould; but by far the most expeditious and easy method is the following: Take a silver coin, (say half a dollar,) hold it with a pair of forceps over the flame of a lamp until it is hot enough to fuse the nitrate, then having the cylinder of caustic in the right hand, between the thumb and index-finger, holding it at an angle of 30 or 40 degrees with the surface of the coin, pressing the point on the latter and turning the cylinder as the part in contact fuses off. A little practice gives great dexterity; and a point of any required acuteness may be obtained, whilst the excess of the salt on the surface of the coin can be returned to the bottle.—*American Journal of Pharmacy.*

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CHOLERA.—*Report of the Medical Advisers of the Sanatory Committee of the Board of Health of the City of New-York.*—At a meeting of the special committee of the Board of Health, held this day, at the Mayor's office, the following report from the medical advisers of the committee, prepared in accordance with the resolution adopted by the special committee, at a previous meeting, was made, which, on motion was accepted, adopted, and ordered to be published in the city papers.

W. F. HAVEMEYER, *Mayor.*
NIEL GRAY.
MORRIS FRANKLIN.

MAYOR'S OFFICE, Dec. 8, 1848.

The undersigned, having been appointed by the Sanatory Committee of the Board of Health to prepare a communication to the public, in relation to the epidemic cholera with which this city is at present threatened, respectfully report that, as yet, the disease is entirely limited to the quarantine, and the hope is cherished that under the protection of a kind Providence, this city may be preserved from its ravages. It is evident, however, that the cause of the disease is hovering in the atmosphere about us, and it therefore becomes a duty to adopt in season all such precautionary measures as may tend, if possible, to mitigate its evils, should it unfortunately assail us. Under this impression, they beg leave to make the following suggestions:

As the whole history of the cholera shows that its diffusion is promoted by all those causes which have a tendency to render the air impure, the first and most important concern relates to the cleanliness of the city. To accomplish this, the undersigned are satisfied that the Board of Health have taken such measures, and will continue to do so, as they trust will be efficient. The Board of Health, however, it is evident, cannot do every thing, and the committee would respectfully call upon their fellow-citizens to coöperate with them in every possible way in their power. Sources of filth and impurity may exist without the knowledge of the public authorities, and every citizen should feel the necessity of keeping a watchful supervision over his own premises, and when individual efforts are inadequate, to call upon the board for aid and assistance.

Believing that much may be done in the way of prevention, if not cure, of the disease, in case it should unfortunately attack us, the undersigned would offer a few suggestions of a general nature, founded on experience, leaving the application of them to good sense and discretion of the community at large.

In the first place they would advise particular attention to clothing. From

the nature of the complaint, it is evident that much depends upon keeping the body warm, and protecting it from sudden exposures to cold and moisture. Flannel next the skin should be a universal article of apparel, and they would respectfully suggest to those charitable associations which are in the habit of supplying the poor with clothing to make this an object of special attention. At this season of the year, too, the supply of fuel to the poor should be liberal.

In the second place, the diet should be particularly attended to. The undersigned would not advise any sudden or great changes in the ordinary modes of living, where these modes are temperate and have been found to agree. Such changes, they believe, would do more harm than good. From the peculiar nature of the disease, however, it is well known that certain kinds of food are injurious, and, without going into particulars, they will merely state that all such articles as have a tendency to relax the bowels ought to be avoided. All crude and raw vegetables, as well as violent purgative medicines, are calculated to do mischief. Excesses, either in eating or drinking, cannot be too rigorously abstained from.

In the third place, attention to personal cleanliness, by the frequent use of the tepid bath, is particularly recommended.

In the fourth place, the preservation of a calm and composed state of mind is all-important, and may do more than is generally supposed in preventing the onset of this disease. It is the result of experience that all epidemics are aggravated more or less by mental disturbance, whether in the shape of active panic or low despondency. To the cholera this is particularly applicable. While our citizens, therefore, use every prudential and precautionary measure, let them keep a good heart and dispel all fear.

In the fifth place, with regard to the treatment of cholera, it may be observed that, as a general rule, the disease does not attack so suddenly as to preclude the possibility of calling in timely medical assistance. A relaxed state of the bowels for a longer or shorter period, gives notice of its approach. In all cases, therefore, when any disorder of this kind exists, common prudence will suggest the necessity of resorting to medical aid. If this be done in season the disease may generally be promptly arrested. When professional aid cannot be immediately obtained, and where simple relaxation of the bowels exists, 15 or 20 drops of laudanum may be taken; to be repeated in one or two hours, according to circumstances. For young persons and children the dose must be reduced according to the age—at the age say of ten years, 5 drops; at the age of two or three years, 2 or 3 drops.

Where the symptoms are more severe and the patient is cold, in addition to the laudanum, he should be put immediately to bed between blankets, and every appliance in the shape of bottles of hot water, bags of hot salt or sand, frictions, etc., etc., etc., be diligently resorted to. A strong mustard poultice, too, should be applied over the region of the stomach, to remain on until it produces smarting of the skin. In addition to this, a little brandy and water should be given, with the view of restoring warmth. As in this city no difficulty in obtaining the speedy assistance of a physician can exist, any directions in relation to the after treatment are deemed unnecessary.

JOHN B. BECK, M. D., *Chairman.*
RICHARD L. MORRIS, M. D.
JOSEPH M. SMITH, M. D.

New-York, Dec. 8, 1848.

New Medical Schools.—By our recent exchanges we learn that two new Medical Schools were advertised to go into operation the present winter in the North-West. One at Rock Island, Illinois, and the other at Iowa City, Iowa. Can it be that the wants of the profession, in the far West, demand the establishment of these and other contemplated schools? If so, certainly

we are behind the times in our information. If not, why increase the already too numerous list of medical schools in places where, to say the most, but slight and imperfect facilities can be realized for the acquirement of a thorough scientific and practical education?

American Medical Association.—By desire of the Committee of Arrangements, the undersigned request all Societies and other Institutions, authorized to appoint delegates, to send correct lists of those chosen to attend the *next annual meeting*, to Dr. Henry J. Bowditch, Boston, on or before the 1st of April, 1849.

Editors of Medical Journals are respectfully solicited to circulate the above request, a compliance with which will greatly facilitate the organization of the Delegates when assembled.

ALFRED STILLE,
HENRY J. BOWDITCH, } *Sec's of A. M. A.*

☞ The Association, at its meeting in Baltimore, directed that a copy of the Transactions should be sent to such members *only*, as have paid the annual assessment for the present year (three dollars.) Those members paying to the Treasurer five dollars are entitled to three copies.

Medical Societies which have been represented in the Association will be furnished copies on the same terms as members (viz., three copies for five dollars) on remitting the amount to the Treasurer.

To other persons the Transactions will be furnished at the rate of two dollars per copy in paper covers, done up for mail, or two dollars and fifty cents in embossed cloth, on remitting the amount direct to Messrs. Lea & Blanchard, Philadelphia. Or orders left with booksellers will be executed by Messrs. Lea & Blanchard.

OBITUARY.

Death of Dr. Carpenter.—Died at New-Orleans on the 4th of October, Dr. W. M. Carpenter, Professor of Materia Medica and Therapeutics in the Medical Department of the University of Louisiana, aged 38 years. The early death of Prof. Carpenter will long be regretted. In his death the *science* of medicine has lost one of its warmest exponents and firmest advocates. He was one of the first editors of the New-Orleans Medical and Surgical Journal, and his contributions to its pages always gave evidence of the workings of a strong and vigorous mind governed and guided by the strict rules of the inductive method, as evidence of this may be cited, (not as the only illustration which his writings furnish, but as one from among the many,) his "Remarks on the Periodical Maturation and Discharge of Ova in Man and other Mammiferæ; and the Practical Bearings of this Theory." This essay will ever remain one of the first contributions in point of value, which the literature of our country furnishes.

Death of Dr. Hale.—Died at Boston, on Sunday, the 12th of November, Enoch Hale, M. D., M. M. S. S., aged 58 years. Dr. Hale was a graduate of the Medical College of Cambridge University, (August 20, 1813.) He com-

menced the practice of his profession in Gardiner, in the then District of Maine. He afterwards removed to Boston, was appointed a physician to the Boston Dispensary, and at the time of his decease was one of the attending physicians to the Massachusetts General Hospital. He was a liberal contributor to the medical literature of our country. Among the many of his published writings may be mentioned his inaugural dissertation entitled "Experiments on the production of Animal Heat by Respiration." This paper called forth an extended reply from Mr., now Sir Benjamin C. Brodie. His second publication was his "History and Description of an Epidemic Fever, commonly called Spotted Fever, which prevailed at Gardiner, Maine, in the spring of 1814." He received the Boylston prize in Harvard University in 1819, for the best dissertation "On the Communication between the Stomach and Urinary Organs," and again a second prize in 1821 for the best dissertation "On the Propriety of Administering Medicine by Injection into the Veins." Both these dissertations were founded on experiments. The last contains the particulars of the author's experiments on the effects of injecting castor oil into his own veins. At the time, Dr. Hale supposed that he was the first that had ever made the attempt on the human subject. Fabricius and Smith had, however, preceded him. On the 29th of May, 1839, he read a paper at the annual meeting of the Massachusetts Medical Society, entitled "Observations on the Typhoid Fever of New England," this paper was soon afterwards published in book form. Among the numerous contributions which he furnished to the medical periodical press, may be mentioned "Remarks on the Typhus Fever of this Climate," which may be found in the Medical Magazine, Vol. II., 1833. This paper contains one of the best descriptions of the anatomical lesion of the glands of the intestines which the early literature of our country furnishes.—*Condensed from Boston Medical and Surgical Journal for Nov.* 22.

PART FOURTH.

FOREIGN MEDICAL RETROSPECT.

ANATOMY AND PHYSIOLOGY.

Note on one of the Anomalies of the Right Subclavian Artery, with Absence of the Recurrent Nerve of the Right Side. By M. DEMARQUAY.—Anatomists and surgeons have remarked with great care, all the anomalies of origin and of distribution which the right subclavian artery can present. It is not my object here to record them. I desire only to draw attention to a curious fact which accompanies one of these anomalies; and to speak of the absence of the right recurrent nerve, when the subclavian artery of the same side arises from the left part of the aortic arch, in place of arising from the brachio-cephalic trunk as usual. When the right subclavian arises from the left part of the aortic arch, it directs its course to the right side, either by passing in front of the trachea, as Professor Blandin has observed, or behind it, or behind the œsophagus, to restore itself to its normal position. In these various circumstances he, (Professor Blandin,) was curious to know what became of the nerve. Is it alike reflected on the artery, or did this anomaly of origin bring with it a modification in the nerve? This it was which I verified for the first time, in 1843, in a preparation which may be seen in the museum of the school.

In this case the subclavian artery passed from left to right, and after having taken its origin from the left part of the arch of the aorta, passed between the œsophagus and the vertebral column, and thus reached the space between the scaleni. In this case, which has been recorded in Professor Cruveilhier's "Treatise on Anatomy," there was absence of the inferior laryngeal nerve. Since then, I have had occasion to examine another subject in which the same arterial peculiarity existed, and where there was a like absence of the recurrent nerve. In these two anomalies, this is the character of the pneumogastric:—it occupies the normal position; from its internal part are given off a great number of nervous filaments, which are distributed to the larynx, to the inferior part of the pharynx, to the trachea, and to the œsophagus. All these nervous filaments, destined to replace the inferior laryngeal nerve, pass under the common carotid artery: some before this vessel, to distribute themselves to the parts which they are destined to innervate. These small nerves, which supply the trachea and œsophagus with nervous energy, are on the whole alike in volume to those which normally furnished the recurrent. As for their length and direction, they are a little different, being longer and directed more transversely. The nerves which furnish, usually, the recurrent to the larynx, come, as in the case which occupies us, from the pneumogastric; this latter affords to the level of the larynx, a branch so voluminous, that it might be considered a veritable recurrent nerve; and which arriving at the inferior part of the larynx, is in every respect disposed of in the same way as the termination of inferior laryngeal nerve, a termination so well studied by Professor Blandin. The cardiac nerves furnished ordinarily by the recurrent, are given off by the pneumogastric.

Dr. Demarquay then observes, that in a functional point of view this anomaly is of no moment, justly remarking that in certain operations, as in tying

the common carotid, it might occasion great embarrassment to the surgeon, and then concludes as follows :

Such, then, are four cases where the abnormal origin of the right subclavian brings with it an important modification of the nervus vagus. Are these, then, accidental cases, or are they the sign of a phenomenon, always persistive when the subclavian (right) artery arises from the left part of the aortic arch ;—and does this induce absence of the recurrent nerve? This I would not venture to say: further observations must prove it.—*Prov. Med. and Surg. Jour., from Gaz. Méd. de Paris.*

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Position of the Rectum in New-born Infants.—M. HUGUIER in commenting upon the difficulty that sometimes exists in passing the canula in the operation for artificial anus, observed that, in the fœtus at full time, the rectum is not found on the left, but on the right side. He has especially observed this in respect to females, in whom the rectum corresponds with the right side of the womb, while at a later period it will be found on the left side.—*Brit. & For. Med. Chir. Rev. from Gaz. des Hôp.*

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On the Minute Structure of the Suprarenal Capsules in Man, and the four Classes of Vertebrated Animals. By Prof. ALEX. ECKER. Of this valuable monograph, which is worthy to take rank with Mr. Simon's Essay on the Thymus Gland, we shall endeavor to present, within a narrow compass, the most important features. After some general observations on the nature of the so-called "vascular glands," Professor Ecker proceeds to inquire into their true relations with the acknowledged glands; of the essential elements of which he gives the following enumeration.

1. The glandular membrane, thin, and structureless, fashioned into variously-formed cavities, vesicles, or canals. These cavities either open externally, as is the case with glands having a *permanent excretory canal;* or they are closed and only periodically open, as in the case of the ovaries and the vesicles of the intestinal mucous membrane, which are examples of glands with a *temporary excretory canal.*

2. A capillary network distributed over the surface of the glandular membrane.

3. Cells and cell-nuclei, which either cover the internal surface of the membrane in question, or entirely fill its cavity.

These structures must be discovered in the "vascular glands," if they are still to be ranged in the class of glandular organs. In the *thyroid* gland, the true normal vesicles were first made known by Bardeleben (1841); he did not, however, determine the nature of their contents. These were stated by Mr. Simon (Phil. Trans. 1844,) to consist of cells and cell-nuclei; and Professor Ecker has arrived at the same conclusion. The truly glandular structure of the *thymus* has been completely demonstrated by Mr. Simon, whose researches are confirmed by those of Dr. Ecker. In the *spleen*, the glandular vesicles have been known as Malpighian bodies, since the time of the anatomist from whom they received their name; but doubts have been entertained regarding the existence of a glandular membrane around them, especially in the mammalia. Professor Ecker, however, has been able to ascertain the existence of this membrane in mammalia as well as in birds. The accounts hitherto given of the *suprarenal* capsules are very imperfect; the distribution of the blood-vessels has been well described, and the occurrence of cells and cell-nuclei in their tissue has been determined; but the glandular membrane has not yet been demonstrated. We can only give Professor Ecker's *résumé* of his researches.

1. The intimate structure of the suprarenal bodies is the same in the four classes of the vertebrated animals.

2. Everywhere we meet with closed glandular vesicles, formed of a structureless membrane, and containing a glandular substance.

3. This substance is composed of (*a*) a plasma rich in albumen, mingled with very minute and very numerous granules of coagulated albumen; (*b*) cells and nuclei, the latter being either compact and dotted over with granules, or being vesicles with one or two nucleoli (the latter form occurring in fishes, and in man and mammalia during the early period of life); these nuclei either lie freely in the midst of the glandular mass, or they have an envelope, and the surface of this is often so condensed as to form a cellular membrane: all the cells of the suprarenal bodies are formed in this manner around a mass of granules including a nucleus; (*c*) numerous fatty particles: in many animals, such as the carnivorous mammalia, birds, and batrachia, a layer of fatty particles closely envelopes the cells.

4. The glandular vesicles are themselves the result of the development of simple cells. The nuclei multiply themselves by endogenous generation, probably by successive divisions of the primitive nucleus; and the enveloping cell-membrane, being distended, becomes the glandular membrane. We are thus acquainted with three modes of formation of glandular cavities; (*a*) by fusion of cells; (*b*) by intercellular spaces; (*c*) by the increase and distension of simple cells.

5. New vesicles are continually being developed from cells, and the old ones successively disappear.

6. A vascular network surrounds the glandular vesicles.

7. In all vertebrata, excepting the mammalia and man, the glandular vesicles form the entire substance of the organ. But in the mammalia and in man, the suprarenal body is composed of two substances, of which the cortical alone includes vesicles; in the horse, however, they are found in the medullary substance likewise. In the cortical substance the vessels are generally elongated, and disposed end to end; and from this arrangement they frequently resemble tubes. The medullary substance is a network of conjunctive fibres, of vessels, and of very numerous nerves. The interstices of this network are occupied by a material similar to that which is contained in the vesicles of the cortical substance.

8. In serpents, the suprarenal bodies have afferent as well as efferent veins; being supplied with blood from the same source as the portal system of the liver.

9. In man alone are the suprarenal bodies more developed during the early period of life.

10. The elements of the gland furnish a fluid rich in protein and in fat, destined to be discharged into the vascular system, either by exosmose, or by the dehiscence of the glandular vesicles. Its use has reference to the general function of nutrition.—*Med. Chir. Rev. from Annales des Sciences Naturelles.*

PATHOLOGY AND PRACTICAL MEDICINE.

On the Pathological Changes in Mucous Inflammation. By Rud. Virchow.—All inflammations are to be considered as alterations of the nutritive process, by which the plasma of the blood is thrown out of the vessels in increased quantity. In inflammations of mucous membranes, their anatomical relations cause the exudation of this plasma upon a free surface. The plasma itself may be unchanged in constitution, or its fibrin may be increased in quantity. Differences in the constitution of the plasma determine differences in the result; and thus are established three leading forms of mucous inflammation:

1. *The Catarrhal Form.*—In this the quantity of the blood-plasma is in-

creased, and thrown out on the free surface. The cells (of epithelium) are formed in greater quantity than normal; but they do not reach their normal development, being replaced constantly by an increased succession of new ones. The richer the plasma, the more rapid is the self-development. In the so-called *chronic catarrh*, there are frequently found in the fluid cells quite perfectly developed, of the aspect of the ordinary epithelium. In acute cases the cells do not reach this stage of development; they do not take on the epithelial forms characteristic of the part, but are thrown off as round, more or less spherical, mostly single-nucleated cells (mucous corpuscles.) In the very acute, particularly the blennorrhagic forms of inflammation, almost all the cells are found in the earlier stages of development, smaller, more delicate, and containing often three to five nuclei; in short, possessing all the characters of the ordinary pus-cell. All these forms may be considered as different grades of the epithelium cell; or, if the name *epithelium* be dropped, as cells developed on the surface of a mucous membrane, and whose only difference is their different degree of development.

2. *The Croupous Form*.—In this the plasma is not only increased, but is also altered in constitution, containing a large amount of fibrin, and coagulating more or less completely. The coagulum lies free on the surface of the membrane. This form is most frequent in the respiratory mucous membrane. The false membrane is either softened, friable (as in tracheal croup,) and contains many cells; or it is of a more firm and fibrinous character (as in bronchial croup and exudation into the air-vessels, or true pneumonia,) and contains the products of rupture of the capillary vessels, red and colorless blood corpuscles. In pneumonia the stage of hepatization, where the air-cells are filled with firm coagulated exudation, is generally succeeded by that of purulent infiltration, in which cells in every grade of development are formed in great abundance. In the first stages these cells have various degrees of resemblance to pus or epithelium; in the stage of resolution of pneumonia, we find the air-cells full of granular cells and masses, or a finely granular emulsion, which are to be considered as the retrograde steps of the newly-formed cells.

3. *The Diphtheritic Form*.—In this the exudation consists of nearly dry coagulated amorphous fibrin, and is infiltrated into the tissues composing the superficial layer of the mucous membrane, or rather of the submucous cellular tissue; for when it projects from the free surface, it is generally covered by the epithelial layer. Where organization proceeds in this kind of exudation, it is generally very imperfect; more commonly it is entirely absent, and a superficial slough is formed. Hence this form has been rightly considered as allied to a gangrenous form of inflammation; it is, in truth, closely allied to hospital gangrene.—*Archiv für Pathologische Anatomie*, &c. Band I. Heft. 2.

[We shall take another opportunity of adverting to these opinions, as well as to other views enunciated in this able journal. In the mean time, we may state that we may agree in many of our author's conclusions, although differing from him in some points; as, for instance, in regard to the constitution of the blood plasma, which we believe to be *least* altered where the fibrin is in greatest quantity, as in the croupous and diphtheritic forms; and *most* altered where, as in the catarrhal forms, the inflammatory phenomena are but a slight alteration of the ordinary secreting process. We believe that the membrane, in its healthy state, possesses a power of selecting from the blood-plasma a new product—mucus; that in disease the nature of this product is changed, and assimilated more and more to the plasma of the blood; in other words, that while the vessels acquire an increased power of pouring out the elements of the blood-plasma, the power of the membrane to alter and select from these elements is diminished.]—*Monthly Jour. Med. Sciences.*

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Characters of the Urine in Bright's Disease. By A. B. Garrod, M. D.—In the

early stages, or acute form of this disease, albumen appears to be thrown out, in addition to the ordinary urinary constituents, and with it we frequently find the coloring principles or globules of the blood. Hence the specific gravity is usually high, the amount of secretion diminished, and frequently a deposit of urates takes place on the cooling of the fluid. Even in this stage, however, the urea is deficient; at least, the total amount eliminated in the twenty-four hours; and this principle is found to be retained in the blood. As the disease advances and becomes chronic, the character of the urinary secretion greatly alters, the albumen often becomes less in amount, and the total quantity of solids is also much diminished, and hence the urine is of low specific gravity, paler in color, and generally slightly opaline, an appearance due to the suspension of certain insoluble matters consisting of the cylindrical lining of the urinary tubules, fat globules, epithelium scales, etc.; these, by standing, form a light flocculent deposit; the persistence of these bodies in the urine may be almost regarded as pathognomonic of the disease; although temporarily, they may occur in any affection in which there exists an irritated or congested condition of the kidneys. The quantity of urine excreted in the twenty-four hours is generally very deficient, and its relative amount, compared with the total solids, is also much lessened. It is in these cases that we find abundance of urea in the blood and effused fluids, the kidneys having lost their power of eliminating this body. The amount of watery excretion may be either large or small; sometimes it considerably exceeds the normal average, at others it falls far short of it, and in the last stages the urinary secretion may be totally suppressed. In the following table two analyses are seen, taken from Becquerel, showing the amount and characters of the urines in two cases of the disease.

	I.	II.
Amount of urine in twenty-four hours	28 oz.	78 oz.
Specific gravity	1016·3	1008·4
Water	965·0	986·3
Urea	11·6	1·8
Uric acid	0·3	0·2
Extractives	4·6	5·5
Fixed salts	6·6	2·9
Albumen	11·9	3·4
	1000·0	1000·0

Albumen is stated occasionally to occur in the urine after the ingestion of certain articles of diet, as pastry: also after the administration of mercury, and the application of blisters of cantharides. Of the power of the first-named cause I have never seen an example, and that mercury by no means frequently produces such a state of urine I have had ample proof, although, in Bright's disease, salivation is often readily produced by this mineral, which may have led to the opinion of its having caused the presence of the albumen in the fluid. The application of blisters appears sometimes to cause albuminous urine, probably from irritating the kidneys, and we know that hæmaturia also is at times thus produced.—*Lancet.*

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Chloroform Inhalations in Cholera. By WILLIAM ROBERTSON, M. D.—Chloroform inhalations, it was not unnatural to suppose, would be found of considerable efficiency in at least removing the painful sensations of the patient during an attack of cholera. Most marvellous accounts of their efficacy in removing the most formidable symptoms of cholera have been published, and most unaccountable it seems to me, that in a large number of experiments undertaken while strongly prepossessed in favor of the remedy, conducted with considerable patience, and all the precautions conceived necessary to insure suc-

cess—conducted, moreover, in a public hospital, and before the eyes of many observers of acknowledged accuracy—I should have totally failed in achieving similar delightful results. Truth compels me to state, that although chloroform has done much for the *comfort* of my cholera patients, it has done nothing for their *cure*. The cramps and urgent vomiting cease under its use, but recur whenever the patient awakes; and, although the soporific influence be maintained for hours by repeated inhalations, the result is still the same. The acts of vomiting and purging cease for a time, but the fluids are nevertheless still collecting in the stomach and bowels; the pulse becomes smaller and smaller, till it finally ceases to be felt at the wrist; the respiration becomes slower, the temperature of the surface sinks, as in too many cases of fatal collapse, and death closes the scene. I confess it seems to me probable, that chloroform inhalations, when administered during a profound state of collapse, may precipitate the fatal event by diminishing the frequency of the respiratory movements. While I deny the drug all claim to the title of a specific in confirmed cholera, I do not deny its efficacy in removing the earlier and more painful symptoms of the disease, nor decry the propriety of using it at any period when the cramps are severe.—*Month. Jour. Med. Sci.*

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On Delirium in Pneumonia.—By M. Grisolle.—This phenomenon is of importance, not only because it may arise from different causes, offering opposite indications, but also because it may, in some cases, give rise to the belief in the existence of a cerebral disease, when in fact the affection is seated in the lungs. And the necessity of a complete examination of the organs is shown by the fact, that where this has been neglected, it has not uncommonly happened that persons have been carried to lunatic establishments on account of a temporary mania, developed during the acute stage or the resolution of pneumonia.

A third part of such cases manifest themselves in persons addicted to drinking; and it has been said that pneumonia of the apex especially gives rise to this symptom; but of 27 patients exhibiting delirium, M. Grisolle has found the apex affected in 9, the base in 14, and the middle lobe in 4; and MM. Andral and Briquet have made similar observations. It may, however, be stated, that double pneumonia is more likely to give rise to delirium than single. It manifests itself more frequently in men than in women, in the proportion of 21 to 6, and of these 27 patients, 3 only were less than forty years of age—the usual age being between 50 and 60. MM. Hourmann and Dechambre state that among the old women at Salpêtrière, delirium is an habitual accompaniment of pneumonia. The symptom generally occurs from the 4th to the 6th day, especially in drunkards, although it is by no means rare to find it at the commencement of the pneumonia, or even preceding it by from one to four days. Lastly, when the progress of the pneumonia has been rapid, it may not exhibit itself until the decline of the disease, or during convalescence.

It may assume various forms, from slight incoherence to furious delirium; and in drunkards there are the hallucinations, excitement, sleeplessness, and tremor, observed in *delirium tremens*. This last form, if not relieved, terminates in coma and death in 4 or 5 days. The autopsy generally exhibits only some vascularity of the pia-mater and injection of the cerebral substance, signs of recent meningitis being observable in about a fifth of the cases. The presence of this delirium gives rise to an unfavorable prognosis, not only on its own account, but because of its generally being conjoined with extensive pneumonia; but the prognosis is less serious in the case of drunkards than in others. Of 27 cases, M. Grisolle lost 8.

Although in the *treatment* of the case which has given rise to these remarks, bleeding was not resorted to, in consequence of the age of the patient, the long duration of the disease, and the smallness of the pulse,—antimony and a

blister being successfully substituted,—yet it is, in general, far from being contra-indicated. When the delirium seems to predominate over all the other symptoms, M Récamier has given musk, in the form of pills, in doses of from 8 to 10 décigrammes, with success; but M. Grisolle has frequently failed with it. In the cases of drunkards, full doses of opium, continued until sleep is procured, are indicated; with which full doses of tartar emetic may be advantageously combined. Alcoholic drinks are also highly useful, not only for the cure of the disease, but also, as M. Chomel long since observed, for its prevention. We should therefore inquire into the patient's habits, and remembering that in drunkards delirium comes on from the 5th to the 7th day, we should, if any trembling of the lower lip and sleeplessness indicate the approach of the complication, at once administer the alcohol, and often the best effects will follow.—*Med. Chir. Rev. from L'Union Médicale.*

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Influence of Russian Vapor-baths on the Cholera.—Of all the means employed against cholera, one of them from which the most efficacy is derived, is the vapor-bath. In some cases it has produced the most advantageous results in Russia, where its use is more generally adopted than in our climate. In the report of the medical commission, sent to Petersburg in 1830, we see that in the hospital of the hemp merchants, which contains all the materials for vapor-baths, out of forty cholera patients submitted to that treatment, six only died. Dr. Minchowsky, chief physician to the establishment, having, at the request of Drs. Barry and Russell, heated and fitted up the baths with vapor, as in the case of receiving patients for the cholera, two servants belonging to the hospital were sent with a thermometer for the purpose of measuring the degree of heat. In the space of three minutes the thermometer mounted, in the most elevated part of the building, to 46° Reaumur's scale, and in seven minutes it rose upon the bench where the patients were placed, to 58° 12. Dr. Minchowsky, when a patient was brought in suffering under a severe effect of frost, placed him in the bath extended on the bench, and, after rubbing him with divers substances, applied the vapor of water and vinegar, until the circulation was restored, or until all hope of saving life had vanished. A patient who was at the last extremity, after being three hours in the vapor-bath at the high temperature, was restored to life. One of the physicians belonging to the commission, gives an interesting description of the vapor-baths in Russia, and the sensations he experienced, when he tried the effects on his own person.—*Med. Times.*

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Ergot of Rye a Remedy for Excessive Dilatation of the Pupil from Belladonna.—M. Comperat has announced a plan by which he has succeeded in removing dilatation of the pupil produced by belladonna in a patient of his, in whom the iris was scarcely visible, so complete had been the action of a small dose of belladonna applied externally. For some days the excessive dilatation resisted the employment of various collyria. He prescribed powdered ergot of rye, taken like snuff. The dilatation disappeared in a few seconds—it soon returned, the same remedy was again employed, and it did not reappear. He thought that ergot might be thus used in cases in which dilated pupil arises from other causes.—*Med. Gaz.*

SURGERY.

On the Performance of Operations at Intervals. By M. VIDAL.—M. Vidal recently read a paper at the *Académie*, in which he endeavored to show that advantage may sometimes result from performing the different stages of operations at intervals of some days. In this way may the economy be better able

to allow of the removal of a long-standing disease, and the proceedings of nature are imitated. Thus, in the removal of foreign bodies from the vicinity of important parts, she protects these by adhesions and thickenings before she forms her external aperture. M. Goyrand, of Aix, has already acted upon the principle in *removing a loose cartilage from the knee-joint;* for, having opened the capsule by an oblique subcutaneous incision, he forced the foreign body into the external wound, and detained it there until the aperture in the capsule behind it was healed up. So also before *opening deep abscesses and cysts*, MM. Begin and Recamier have made preliminary incisions nearly down to the cavity, and have applied caustic, and left the discharge to nature, or have only effected this after protective adhesions have had time to form. Various practitioners have performed *lithotomy* at distinct intervals, first making all the incisions even into the bladder, and extracting the stone on another occasion; but the author is of opinion that the wound should extend down to the bladder, but *without opening it*, and be filled up with cerated lint, while the condensation of the neighboring cellular tissue is effecting, forming a kind of organic cement around the passage through which the urine will have to pass. This done, the bladder may be opened, and the stone removed without infiltration occurring. The author adduces several examples in which these principles have been advantageously acted upon in *autoplastic operations;* and refers to their especial importance in cases of recto-vaginal and recto-vesical fistula. The guiding principle is, that it is better to perform several, short, non-dangerous operations, than one long, complicated, and dangerous one.—*Brit. & For. Med. Chir. Rev, from L'Union Médicale.*

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Results of the Excision of Bone.—From the results of one hundred and eighteen cases in which he had practised excision of bones, Professor Gaetano Textor (a Bavarian) observes, that the operation is usually favorable as regards the upper extremities, but much less satisfactory as regards the lower extremities, especially when performed at the knee-joint. When the head of the femur requires to be excised, he insists particularly on the advantage of the operation being performed below the lesser trochanter; and he mentions one case in which, having pursued this plan, the patient, a young man, was subsequently enabled to walk without any additional support, and with almost perfect facility.—*Med. Gaz. from Gazette des Hôpitaux.*

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Treatment of Hemorrhage after Excision of the Tonsils.—M. Hatin having met with a case of most alarming hemorrhage after the excision of a hypertrophied tonsil, which resisted all the usual stypties, an ingenious and successful mode of employing compression occurred to him. He took a long straight pair of forceps, used for the removal of polypi from the posterior nares, and having covered one of the blades with amadou and lint, applied it to the bleeding part, applying the other blade externally to the angle of the jaw, any amount of compression being producible by approximating the handles. M. Malgaigne, to whom the account of the case was sent, refers to a discussion which took place upon the same subject at the Surgical Society. In the case which gave rise to it, M. Chassaignac succeeded, after everything else had failed, in arresting the bleeding by holding a piece of ice by means of a forceps in constant proximity to the bleeding point. M. Guersant had met with three cases, one in the adult, stopped by the actual cautery; one of the two children had a hemorrhagic tendency, and in the other an alarming hemorrhage occurred on the third day. Muriatic acid and honey succeeded best, ferruginous prepartions being given internally. In the only case met with by M. Huguier, he found *ice-drinks* suffice. M. Robert doubted the propriety of using ice in these cases, as it has sometimes produced a gangrenous eschar. He recommends that the thumb dipped in alum should be applied to the bleeding point, making corresponding pressure with the fingers externally. M. Mo-

nod was acquainted with cases in which the mere keeping the mouth open sufficed to restrain the hemorrhage. M. Malgaigne observes that he has never known hemorrhage follow either excision of the tonsil or of the uvula. Lisfranc, however, met with a bad case of the latter, and arrested the bleeding by compressing the part with a forceps, and applying nitrate of silver to the wound. M. Malgaigne has met with two cases of traumatic bleeding from the fauces. In the one, it succeeded the removal of a tumor, and was arrested by the application of the finger for a few minutes. In the other case it followed the division of an abnormal adhesion of the *velum palati*, which completely obstructed the nasal fossæ; and the bleeding was only controlled as long as pressure was kept up. Believing that the obstruction of respiration contributed much to the continuance of the hemorrhage, M. Malgaigne rapidly completed the operation, and the passage of air being now free through the nares, the bleeding stopped as if by enchantment.—*Med. Chir. Rev. from Rev. Méd. Chir.*

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Amputation of the Thigh at the Hip-joint.—M. GUERSENT operated, on the 28th December, 1847, for a cancerous affection of the femur by disarticulation at the hip-joint. The child, aged 5, was very much reduced. He was put under the influence of chloroform—insensibility was complete in two minutes. The operation lasted only two minutes. When the ligature was being placed on the vessels the child became pale, a little foam came from the mouth, the eyes were turned up, and the pulse at the wrist disappeared. The state of syncope was dissipated by means of active ventilation, and the introduction of a few spoonfuls of wine into the stomach—and the child began to cry, much to the relief of the surgeon. Twenty-two days after the operation the child was as well as possible.—*Prov. Med. and Surg. Journ from Journ. de Méd. et de Chir.*

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Deaths from Chloroform.—[We gather the following from different foreign journals, and publish them, to induce our readers to exercise caution in the use of an agent at times so fatally active. These cases are in addition to those published in our May number.]

1. In July a case was reported to the French Academy of Medicine, in which M. Gorré administered fifteen or twenty drops of chloroform, on a handkerchief held under the nostrils of the patient, a female, aged 30, previous to enlarging a fistula, for the purpose of extracting a foreign body from the thigh. After a few inhalations, the woman cried out she was suffocating; her face became pale, froth appeared at the mouth, and she became insensible. The handkerchief was immediately withdrawn, but every effort failed to rouse her from the state of inanimation into which she had fallen. She never showed any sign of life after the exclamation. On examination after death, a quantity of air was found in the veins; the blood was very fluid, and very dark, almost black, in color.—*Rev. Med. Chir. de Paris, July*, 1848.

In this case the cause of death appears clear, although MM. Velpeau and Roux doubted whether the death could be attributed to chloroform.

2. A case was reported by M. Robert at the subsequent meeting. The operation to be performed was disarticulation of the thigh at the hip, for compound fracture of the femur by a ball. The chloroform vapor was inhaled from a bottle of peculiar construction, and the operation commenced as soon as the patient was under its influence. A very small quantity of blood was lost; but after the formation of the anterior flap, the patient beginning to return to consciousness, a renewal of the inhalation was ordered, and the operation continued. In a quarter of a minute the respiration became stertorous, the inhalation was discontinued, and the operation suspended. The patient's face was now very pale, his lips discolored, eyes upturned. Every effort was made to restore him, but the respirations became infrequent and sighing, the pulse at the wrist ceased to beat, the limbs were perfectly relaxed, and, although the

respiration and pulse seemed to return several times, he died after three quarters of an hour.

M. Robert attributed the death to the chloroform, although he thought the stupor and nervous depression which accompany gun-shot wounds, and the gloomy state of the patient may have contributed to the result.—*Ibid.*

3. An inquest was held by Mr. Wakley over the body of Mr. B——, of London, who died after inhaling chloroform, previous to having a tooth extracted. It appears from the evidence that the inhaler containing the chloroform was held at a little distance from the mouth; that the vapor had been inspired only one minute, when the head and hand of the patient dropped, and he became insensible; every effort failed to rouse him from this state. The jury returned a verdict that he died "from the mortal effects produced by the inhalation of chloroform upon a heart extensively diseased, and greatly obstructed in its action by a liver much enlarged beyond its natural size.—*Lancet, July* 8.

4. A surgeon in the East Indies administered a drachm of chloroform to a young woman, previous to the amputation of a finger; the chloroform was sprinkled on a handkerchief, and the vapor inhaled. She coughed a little, and then made a few convulsive movements. After the operation, which only occupied a few seconds, the patient was placed in a recumbent position, and active means were resorted to bring her from a state of coma, into which she had apparently fallen, but she never breathed again. The death must have been instantaneous, for she never moved, nor showed the smallest sign of life after the convulsive movements described. There was no post-mortem examination.—*Lond. Med. Gaz., for July.*

There can be no doubt that chloroform caused the death in this case.

5. M. Malgaigne lost a patient just as he had completed disarticulation at the shoulder-joint. Mr. Wells, who mentions this, ascribes the death to the chloroform which had been administered, although M. Malgaigne does not.—*Ibid. for August.*

The cause of death in this case is doubtful.

Char. Med. Jour. and Rev.

Operation for Hare-lip.—M. Guersent, who has had extensive opportunities of judging of the most favorable period for operating in hare-lip, gives the preference to the period recommended by Dubois, during the first fortnight after birth. He advises against undertaking the operation when the child is about a year old, or during the process of dentition. It may again be performed with much greater hope of success when the child has attained the age of five or six years. Dieffenbach latterly gave a similar preference to the early operation.—*Monthly Jour. Med. Sci. from Gaz. des Hôp.*

MIDWIFERY.

Prolapsus of the Funis, at the second month of Pregnancy.—Mr. I. B. Brown related to the Westminster Medical Society (Oct. 21) a case of this rare phenomenon. The subject of it was thirty years of age, and the mother of three children. She was threatened with abortion, and after two or three attacks of hemorrhage, attended with expulsive pains, in one of these the cord was found to be presenting in a loop. The following day a severe pain came on, and the cord burst. This was followed by profuse hemorrhage, and the expulsion of the fœtus. The placenta was found to be nearly bloodless. In consequence of the severe pain experienced in removing the placenta, the patient was placed under the influence of chloroform. It was quite successful, and she is doing well.—*Lancet.*

Sore Nipples and their Treatment. By Drs. M'Clintock and Hardy.—Sore nipples may not only incapacitate a woman from nursing—a deprivation in it-

self often sufficiently grevious—but they may, as we have before observed, give rise to mammary abscess, from an extension of the inflammation backwards, along the ducts, to the substance of the gland. This, in point of fact, is the great danger to be apprehended, and every other consideration should give way to it.

When there is reason to dread such a result, the child is entirely withheld from the affected breast, which is kept soft by rubbing, and if the nipple itself appear to be the seat of any inflammation, a bread and water poultice is applied to it.

Of the various topical applications for sore nipples employed in this hospital, it may be well to mention two or three whose value has been established by long experience.

Among these the tincture of catechu holds a high place, and has been found a very excellent astringent; like the other remedies of this class, it is best adapted for the simply excoriated or abraded nipple. Nearly similar to it is the solution of pure tannin, so highly recommended by Mr Druitt. It is made by dissolving five grains in an ounce of distilled water. We have not observed it to possess any superiority over the catechu, except in being more cleanly. The following is a favorite lotion with Dr. Johnson, who has been in the habit of using it for many years:—℞. Sub-borat. sodæ, ʒii.; Cretæ precipitat. ʒi.; Spiritis vini, Aquæ rosæ, āā ʒiii. M. fiat lotio.

This may be applied alternately with the following ointment, or the latter may be used alone:—℞. Ceræ albæ, ʒivss.; Ol. amygdal. dulc. ʒi.; Mellis despumat. ʒss.; Dissolve ope caloris, dein adde gradatim, Bals. Peruviani, ʒiiss. M. fiat unguentum.

In some cases we have seen benefit result from the use of tincture of galls and compound tincture of benzoin (Friar's balsam,) in equal proportions.

It is always well to have in mind a number of these different preparations, for it not unfrequently happens that one will answer our purpose when others have failed. For fissured nipples some authors strongly advise the application of solid nitrate of silver; but our experience does not permit us to speak of it Dr. Johnson thinks it is sometimes a good remedy in such cases, at a remote period of delivery; but that during the puerperal state its use is not advantageous, as it is apt to be followed by mammary abscess —*Practical Observations.—Lon. Med. Gaz.*

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Case of Retention of the Fœtus in the Uterus for Eleven Years—By Dr. Vondorfer.—This woman was forty-nine years of age, and had already borne two children. She was busily threshing corn, when she was seized with violent pains in the back, resembling those of labor. After they had continued for two hours the waters broke and they were discharged. For fourteen days she lay almost entirely upon her knees and elbows. At the end of this time the pains had almost ceased, but still in lying on her back she kept her knees well drawn up. Three weeks afterwards she was seized with a flooding, which was easily stopped. After this, there was a constant fetid discharge from the vagina, which continued more or less for eleven years, and occasionally some fœtal bones were discharged with great pain. During most of this time the woman was able for her work, and in good health. At the end of eleven years she was again forced to betake herself to bed, and she died, after some time, with the symptoms of purulent infection. On dissection, the uterus was found adhering to the anterior wall of the abdomen, and it contained the remains of the putrefied fœtus, along with its numerous bones.—*Monthly Retrosp., from Schmidt's Jahrbucher.*

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On the Introduction of Premature Labor in other cases than Contraction of the Pelvis.—By M. Paul Dubois—M. Dubois relates some of the particulars of the case of a woman advanced 7½ months in pregnancy, who became at-

tacked with so severe a bronchitis, that he was on the point of inducing premature labor, when at last the inflammatory disease yielded. Labor nevertheless did come on, dilatation having, as ascertained by examination, already taken place unpreceded by pain—an argument in favor of interference in these cases.

The modifications induced in the organism by pregnancy are of two kinds, anatomical and functional. Some of these are constant and essential, as all those connected with the increase and development of the uterus; while others are variable, such as the different sympathetic disturbances. Although in the great bulk of cases these last may remain within certain limits, yet at other times they proceed to so dangerous an extent, as to call for the induction of labor. Then there are certain diseases, the severity of which is much added to by the mere fact of their occurring during pregnancy; their aggravation being sometimes quite mechanical, and at others physiological. The following propositions may be laid down: 1. Premature labor is induced with the greater probability of success, in proportion as the morbid states against which it is employed are the more intimately connected with pregnancy, and depend more directly upon it. 2. Success is the more probable, in proportion as the circumstances for which the operation is instituted more generally and more certainly disappear on the cessation of pregnancy, whether induced artificially or spontaneously. 3. The operative procedures must be simple and easy of execution, and must not of themselves add in any way to existing dangers. 4. From the above it may be concluded that, all things else being equal, premature labor is more favorably induced in the morbid conditions *of* pregnancy than in those occurring *during* pregnancy. In the present question, the *viability* of the child does not occupy our attention, as it does in the case of narrow pelvis; for some of the diseased conditions, as obstinate vomiting for example, may occur at a very early period of gestation.

Among the *anatomical modifications*, M. Dubois enumerates the following: 1. *Increased size of the uterus from excess of liquor amnii.* This sometimes gives rise to much general disturbance, severe pain, general anasarca, and intense dyspnœa. Interference is, however, rarely called for; premature labor generally occurring spontaneously. In a case occurring to M. Duclos, in a woman seven months advanced, he evacuated fourteen pints of fluid at several intervals. 2. The uterus may only undergo its normal development, and yet become a source of danger, as when any tumor in part occupies the abdomen, or there is great deformity of pelvis. In these cases, too, labor generally occurs spontaneously. 3. Retroversion of the uterus may call for the induction. It may in some cases be produced accidentally, but generally depends upon some prior existing disposition. It may give rise to severe pain and other urgent symptoms, even in the fourth or fifth month, and these are continually augmented during the development of the organ. Retention of urine is one of the first of these, and the compression of the rectum may induce strangulation. Reduction should of course be attempted, but in some cases this will be found impossible, and the evacuation of the contents of the organ become necessary. In some cases, the introduction of an instrument into the cavity of the organ has been found impossible, and perforation of its substance has been resorted to, sometimes with success, sometimes with fatal results. 4. Certain copious hemorrhages due to the implantation of the placenta at or near the os uteri, call for the operation.—*Brit. & For. Med. Chir. Rev., from Gaz. des Hôp.*

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On the Treatment of Cauliflower Excrescence of the Uterus. By Dr. Renaud.—The treatment resolves itself, first, into operation with intent to cure, either by ablation of the cervix uteri, ligature around the base of the tumor or by caustics locally applied; secondly, into a palliative treatment, without intent to cure, but with intent to prolong life, reduce pain, and render more

endurable the miseries that in this disease so thickly bestrew the passage to the grave.

That the cervix uteri may be excised with moderate safety to the patient has been long proved by the surgery of M. Lisfranc, who performed the operation some ninety-nine times for various diseases, and with recovery to the major part of his patients. If, therefore, cauliflower excrescence be found implanted on the os uteri, and there be no wide-spread induration of the cervix, or enlargement of the body of the uterus, neither any ovarian tumors, there is very good reason to expect that excision of the cervix uteri will be attended with present relief to the patient, and at the same time, afford her a probable chance of recovery. From evidence already in possession, it would appear that the chances are greatly in favor of a return of disease to the uterus or of appendages in the form of cerebriform cancer. Dr. Simpson has nevertheless recorded a case of this disease on which he operated by excising the uterine neck so successfully, that five years afterwards the woman remained in good health, and, in the interval had given birth to, and suckled, three healthy children. Dr. Montgomery also had a case of this disease, for the cure of which he had removed the cervix, and the woman had remained well at the time of writing—viz. three years after the operation.

The more common practice, as being the more easy of adoption, and the less attended with dangerous consequences, has been the passing a ligature as near round the base of the tumor as the peculiarity of its shape will admit. This operation does not appear to be attended with any common risk to life, and the greatest inconvenience to be expected from it is the fœtor of discharge, and sphacelus consequent upon the tedium of separation. Accordingly as the tumor is more or less dense, and the ligature aptly applied, will be the duration of time necessary to the complete separation of the parts. Twelve days may be allowed as a maximum time for the accomplishment of this purpose, and three or four days a minimum. On the ligature coming away, the parts may be allowed to remain quiet, or corroding substances applied to the cervix of the uterus, with intent the more completely to destroy the root. Amongst the best of these will be found the potassa fusa, nitrate of silver, fluid nitrate of mercury, or plain nitric acid. All or any of the foregoing may be directly applied to the neck of the uterus, through the speculum, with the most complete impunity.

A third method of destroying the excrescence is by means of caustic substances applied to it twice or three times a week. For this purpose the solid nitrate of silver, or a very strong solution, may be used, and used freely. If the tumor be large, as much as a quarter of an inch of caustic may be melted down on its surface, and within its interstices; or I have allowed as much as a drachm or two of the strong solution to infiltrate into the tumor through the speculum. This treatment, when regularly continued, does not fail shortly to develop the root of the fungus; and thus, by cutting off the mass of the disease, reduces the wasting discharges, and gives the patient time to rally. I would prefer this plan of treatment to ligature, because it gives no more annoyance, perhaps less, to the patient than it; and, moreover, does away with the offensiveness of the discharges, besides being a more gradual process.

Taking a view of the disease as cancerous, one grave objection may possibly apply to the ligature and caustics in common—viz. that the same malignant action being repressed on a free surface, will have a corresponding tendency to repeat itself within the tissues of the part on which it is implanted, and spread itself by simple extension, or be found as secondary cancerous masses in remote parts of the body. Thus, while a real good may appear to be effected on one part, a more than corresponding evil may be ingrafted on another.

With regard to the operation of complete excision of the cervix, the same rule will apply as that in force concerning hæmatoid fungus, viz. the complete

ablation of the diseased part,—an operation the performance of which, under favorable circumstances, would appear always just, on the principle of obtaining a present good, rather than delaying for fear of a contingent evil. It is true that excision of the os and cervix uteri has fallen into much disrepute, and for the reason probably that numbers of such operations have been performed unnecessarily, injudiciously, and not seldom for the removal of mere functional engorgements capable of cure by therapeutic means.

After any of these operations, it would seem politic to have recourse to occasional local abstractions of blood, and to place the patient on a long course of alterative medicines, recommending, in addition, pure air, moderate exercise, and cheerful associations.—*Med. Gaz.*

On the Management of Still-born Children.—The management of suspended animation in new-born children is a subject so well understood, and the principles upon which it should be conducted are now so clearly recognised, as to render any lengthened observations thereon wholly unnecessary in a work like the present. The following short description, therefore, of the practice of the Hospital in this class of cases (not the least important or interesting to the accoucheur) is purely confined to practical details, especially such as relate to the use of the *stethoscope* and of *artificial respiration.*

When a child, immediately after its birth, exhibits none of the ordinary signs of vitality, such as respiratory efforts, or muscular contraction, the question will at once suggest itself, does life yet remain—is there still a possibility of restoring animation? We hesitate not to say that the most accurate information upon this point is to be derived from the stethoscopic examination of the heart, for we have seen very many children resuscitated with whom the *cardiac pulsations as detected by mediate auscultation,* had been the only proof of lingering vitality. What the effect of such evidence should be on the physician's conduct we need not at this moment stop to inquire; but it would undoubtedly prove a source of much encouragement under circumstances otherwise apparently hopeless, and at a time when he must be oppressed with the consciousness that the result of his endeavours is awaited with the most intense anxiety and solicitude. We have seen many infants restored to animation in whom respiration was for a long time suspended, yet we never saw a single instance where the slightest symptoms of vitality could be produced if the heart's pulsations had ceased to be audible when the child was born. It may be asserted, without fear of contradiction, that had the stethoscope been used, no such accident could ever have happened as a doctor ordering an infant to be removed as dead which afterwards recovered without any assistance. Let it not be supposed, from the preceding observations, that we would recommend any innovation upon the rule that resuscitation should *always* be attempted in the absence of the signs of decomposition; to the excellence of this precept we give our full concurrence.

Children laboring under suspended animation at the time of birth are found to present very different external appearances, which, it may be supposed, are regulated by the extent and kind of lesion the vital functions have sustained. Now we think that, setting aside physiological considerations, and looking solely to practice, all these cases may be conveniently arranged in two classes, whose characteristic features are drawn from the general condition of the infant. In the one case the child is pale and perfectly flaccid; the eyes are closed; there is complete relaxation of all the muscles; great flexibility of the joints; and the finger can be pressed into the pharynx without any opposition being felt. In this form, which we are inclined to think is, perhaps, the more dangerous of the two, the state of the child closely approximates to syncope, as there seems to be a failure or deficiency of the vital principle.

In the examples of the second class, the outward appearance of the child is totally different, and would seem to be the result of great cerebral congestion

or apoplexy. The surface of the body is apparently swelled, and of a red or livid color, and both these characters are most remarkable in the face and neck; the eyelids are generally apart, and the eye-balls prominent, with more or less injection of their conjunctival membrane. There is seldom that extreme mobility of the limbs and flaccid state of the muscles that we see in the former class of cases. This state of the fœtus was very apt to occur where the umbilical cord had tightly encircled the neck, or where the expulsion of the body did not take place for some time after the head.

Should the child not begin to breathe immediately after its birth, sprinkling the chest and face with cold water generally proved a most efficient means of stimulating the respiratory muscles, and exciting sensibility. This is a measure, however, which cannot be persisted in after the first or second trial, as it is of too depressing a nature; on this account, also, it is not well adapted to the cases included in our first class. It was, of course, an established rule not to sever the connection between the fœtus and placenta as long as the pulsations of the cord continued distinct. If the child presented an apoplectic appearance, some blood (℥ij. or ℥iv.) was allowed to flow from the fœtal end of the funis after its division. This simple mode of depletion frequently produced the most beneficial effects, relieving the oppressed state of the nervous system, and being speedily followed by signs of increased sensibility. If a sufficient quantity of blood could not be procured from the funis, the application of a leech to the temple was frequently attended with marked advantage. When the cord was long enough to admit of it, the warm bath was sometimes employed before cutting it. Smartly slapping the chest or buttocks is often resorted to with advantage in mild cases where the suspension of animation is only partial; but it will not, we think, be found to answer any good purpose if the infant be in a low state of vitality. Ammonia applied to the nostrils is an excellent restorative if there be any attempts at inspiration, so that it can be inhaled, but otherwise it is of no use. These efforts of the child to breathe will be very much assisted by compressing the epigastrium and sides of the chest with the hands, so as to empty the lungs of the inspired air as effectually as possible. In the first instance, and before adopting other measures, it is of importance to rid the mouth of any mucus that might hinder the entrance of air by obstructing the glottis. For this purpose Gardien recommends a pledget of lint dipped in a solution of common salt to be used. A flexible tube, with a pump attached to it, has also been employed; but we give the preference to the finger over every contrivance.

In every instance where the process of respiration was slow of being established, or very imperfect after two or more trials in the above restorative measures, artificial respiration was commenced, and continued, *with intermissions*, until the necessity for its further employment was superseded by the natural performance of the function, or until the gradual failure and cessation of the heart's action showed that all attempts at recalling the vital principle might be relinquished. We have said "with intermissions," because it was generally thought advisable to suspend the process for a moment or two at intervals, just to see if the failure of the supply of air to the lungs would stimulate the child to make an effort at inspiration. A gum-elastic male catheter, of the full size, (No. 9 or 10,) was the instrument used on all occasions for inflating the lungs. The child was placed in a horizontal posture, with the neck considerably extended, and the head bent rather backwards; the catheter was passed a short way into the mouth, and the lips and nostrils were then kept closely compressed, at the same time that the larynx was gently pressed against the spine, so as to favor the ingress of air into the trachea, and to prevent or obstruct its transmission down the œsophagus. Alternately with the insufflation of the lungs, a slight degree of pressure was made on the epigastrium and ribs, with a view to assist expiration. There was great difficulty with some children in directing the current of air down the trachea, and keeping it from distending the stomach. This was avoided by placing a hand on the precordial

region, and altering the position of the head and larynx. During the process of inflation, which was repeated at short intervals in imitation of natural respiration, whenever the child made any attempt to breathe, the compression was instantly removed from the mouth and nose, in order to give every facility to the entrance of air. It was considered a point of importance, in blowing through the catheter, to do so in the manner of using the blow-pipe, namely, that the efforts should be made by the mouth and soft palate, and not by the chest; and consequently, that the air should come from the mouth, and not from the lungs of the operator. This mode of inflating the lungs of still-born children is, we conceive, open to fewer objections than any other. In the first place, the degree of force with which the air is propelled can be carefully regulated: secondly, its temperature is raised before entering the chest of the infant: thirdly, in quality, it is little, if at all, removed from pure atmospheric air; and, lastly, no injury can possibly be inflicted on the soft parts within the mouth of the child. From our experience of this measure we must speak of its utility in terms of the strongest commendation, as we never could trace any evil effects from its employment, whilst in very many instances we have had every reason to believe that the child's life was preserved by its means.

The artificial respiration very constantly accelerated the action of the heart, where this was at all pulsating at the time of commencing the process; but we never observed that it restored in the least degree the cardiac movements after these had ceased to be perceptible. The recovery of the child did not, by any means, follow as a consequence of this improvement in the heart's functions; for, on many occasions, we have known the pulse to double its rapidity under the employment of this agent, but as soon as its use was suspended, the velocity of the circulation would quickly diminish, again to become raised on inflating the lungs; and thus we have seen matters go on alternating for two hours or upwards, and yet the great object of our exertions not be ultimately attained.

When, however, this increased frequency of the pulse is accompanied by other indications of vitality, such as restoration of the natural color to the surface, the efforts at respiration recurring at shorter intervals and with more strength, signs of muscular irritability in the limbs and face, &c., we may calculate, with tolerable certainty, upon a successful issue to the case.

The artificial process was generally left off as soon as natural respiration was at all established, or at least sufficiently so to maintain the heart's function in that state of activity to which it had been raised by the temporary expedient of inflating the lungs. As resuscitation can seldom be considered complete and satisfactory until the infant breathes naturally, or cries aloud, it was often necessary to proceed with the employment of restorative and invigorating remedies for some time after the discontinuance of artificial respiration. As soon as the child could swallow, small quantities of white-wine whey were given from time to time; or if it seemed very languid and feeble, a small enema containing a few drops of the fetid or aromatic spirit of ammonia was administered. But by far the most important point in the management of these weakly, delicate infants, or of such as are in a similar condition from having been born prematurely, is to support the temperature of their bodies by artificial means. For this purpose nothing answers so well as cotton wadding, being softer and warmer than flannel or any of the materials ordinarily used in the clothing of children.—*M'Clintock and Hardy's Practical Observations.*

MATERIA MEDICA AND PHARMACY.

On Emulsions of Castor Oil. By A. Manne.—Having frequently to make emulsions of castor oil, either by prescription of physicians, or at the de-

mand of my customers, making them in fact four or five times day, I found myself in a position to make researches relative to the best means of administering this medicine. * * * I have employed gum arabic in different proportions, but have obtained emulsions either too thick or imperfectly made. The yolk of egg has offered me an excellent emulsion, but one yolk is required for every ounce and-a-half of oil. Is it not possible that the yolk of egg injures the purgative effects of the oil by its nutritive properties? Does it not render the purgative heavier and less supportable by the stomach? These doubtful points lead me to doubt the utility of yolk of egg, and determined other attempts at finding a means of making a homogeneous emulsion, agreeable to the sight and more supportable by the stomach. To accomplish this I have had recourse to gum tragacanth, and the following formula has given the most satisfactory results:

Formula for Purgative Emulsion of Castor Oil.

℞.	Castor oil,	11 drachms.
	Powdered tragacanth,	1-2 drachm.
	White sugar,	75 grains.
	Water,	2 1-2 fluid ounces.
	Syrup of orange flowers,	6 fluid drachms.

Mix, and make an emulsion as follows:

Triturate the tragacanth with the sugar, then add the syrup and agitate rapidly in a mortar, until the mucilage begins to thicken a little, I then add the oil and continue to triturate until the mixture is homogeneous, and add the water little by little during the trituration. In this manner I have obtained an emulsion of castor oil which leaves nothing to desire, and which will remain eight or ten days without an atom of oil separating.—*Amer. Jour. Phar., from Jour. de Chimie Médicale.*

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Camphor and Chloroform Mixture. By T. and H. Smith. (*Monthly Jour.*)—There is great difficulty, or rather an utter impossibility of administering camphor in a state of solution in doses of sufficient potency in some cases. The form of pill, the only mode of giving large doses of this medicine, is objectionable in many cases, and in others altogether inadmissible. The camphor, being merely in a state of mechanical division, on being set free in the stomach, from its extreme lightness quickly separates and floats about, thus producing in many cases much local irritation in the organ, instead of soothing or arousing the general system.

Messrs. T. & H. Smith, chemists, of Edinburgh, give a formula for exhibiting camphor in doses of almost any amount and strength—certainly as large as any case can require—and that in a state of perfect solution: thereby allowing of a nice adaptation of the dose to the circumstances of each case.

The formula is as follows:—Three drachms of solid camphor are dissolved in one fluid drachm of chloroform. This is, perhaps, one of the most remarkable cases of solution the whole range of chemistry presents to us. The solution is most *rapid and complete*, and the bulk of the liquid is now increased from one to four fluid drachms. This solution rubbed up with the *yolk* of one fresh egg, may be formed into an extremely elegant emulsion by the addition of water, without the slightest separation of the camphor or chloroform; in fact, no separation of any kind takes place. If to the proportions given above as much water be added as to make a four-ounce mixture, each teaspoonful of the mixture when formed will contain about five-and-a-half grains of camphor, and about two minims of chloroform. The capability of the formula being varied, so that either the camphor or chloroform may constitute the predominating ingredient, must be quite obvious. This mixture can be administered in any ordinary vehicle, such as water, without the occurrence of any separation; indeed, the mixture is as readily and completely effected as cream

with tea or coffee. We have tried the effect of several medicinal substances on the mixture. With none of them has any separation been caused.

A weak saline solution, composed of common salt, phosphate of soda, and an alkaline carbonate, mixed readily, as well as a solution of muriate of morphia and sulphate of zinc. With the volatile alkali and acid liquids—such as a weak solution of acetic and muriatic acids—the mixture seems to become more intimate and stable. The mixture with ammonia has stood since its preparation—now fully a week—without any separation. With water alone, however, the chloroform solution of camphor separates in a few days, but they readily unite again when slightly agitated. The solution of camphor in chloroform, although insoluble in water alone, appears in this mixture to be in as complete a state of mixture as the butter, in milk when newly drawn from the cow.

The therapuetic value of the formula remains to be ascertained.

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On the Utility of Trisnitrate of Bismuth in the Diarrhœa accompanying Phthisis.—By T. Thompson, M. D., F. R. S., etc.—The author considers the trisnitrate of bismuth to surpass in efficacy and safety our most approved remedies for this complaint. He has taken every opportunity, during the last twelve months, of testing its powers, and has preserved notes of twenty-one of the cases in which it was administered. Of these, eighteen were phthisis in various stages of progress, and three, bronchitis. In fifteen of the patients the diarrhœa was entirely removed; in four, transient benefit was experienced, and the remedy proved useless only in two instances. The dose administered was about five grains daily, usually combined with a little magnesia and gum arabic. Dr. Thompson has referred to various authors who have written respecting the properties of bismuth, without being able to collect from them any evidence of its powers in the phthisical variety of diarrhœa, but he entertains a strong conviction of its peculiar appropriateness to this affection, and has obtained important confirmation of his experience in a recent communication from Dr. Lombard of Geneva.—*Dublin Medical Press.*

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Quinine as a Prophylactic in Puerperal Fever.—M. Leudet cites several cases which occurred during the prevalence of three different epidemics at Rouen, in which quinine, given in doses of five grains three times a day, and commenced with a few hours after delivery, seemed to exert a protective agency. On the third day, this quantity was diminished, and the drug left off about the sixth day. In those epidemics in which the disease commences very speedily after delivery, the quinine should be administered as soon as labor begins.—*Med. Chir. Rev., from L'Union Méd.*

MISCELLANEA.

Use and Abuse of Anæsthetic Agents.—Mr. James Braid, in an article in the *Medical Times*, (Aug. 19,) remarks: "Of all the revolutions which ever took place in regard to any medicinal agent, nothing so eventful was ever known as what has been evinced in the fate of anæsthetic agents. Their advent was hailed with universal enthusiasm, and seemed to be followed by unalloyed success. By their agency, a second Eden seemed to be dawning on fallen man, pain and peril were no longer to be the lot of those doomed to undergo surgical operations, and parturient women exulted in the assured confidence that they were redeemed from the pains and penalties of the primal curse, through the omnipotent powers of ether and chloroform.

"The rapidity with which these potent agents attained their culminating point of fame and favor is most remarkable, and not the least surprising point in my estimation, was this, that their almost universal adoption, and in many instances their being applied apparently with little care or caution, took place without the occurrence of dangerous or fatal accidents. For a considerable period all seemed a run of unalloyed success; but the tide has now turned, and instances of disaster and death are recorded as such frequent occurrences from the use of chloroform, as must soon issue in the entire abandonment of this agent by the profession, and the insurmountable dread of it by the public, unless we can arrive at some satisfactory solution of the true cause of the late unfortunate results, and determine the principles which ought to guide us in its future administration, so as to insure the blessing without the curse, of an agent which seems to be alike potent for good or for evil, according to the mode in which it is administered.—*Med. News.*

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Minute Injections.—"Dr. Hershfield, who has become celebrated in Paris for the perfection of his minute injections, adopts the following method:—The subject being placed first in a bath for some hours, the following mixture is injected:—For the *arteries:* oil, one litre; vermillion, one and a half lbs. For the *veins:* linseed oil, two litres; white lead, 1 lb.; indigo, q. s. The addition of two tablespoonfuls of soft Venetian turpentine, renders the mixture as penetrating as possible."

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State of Medical Education in Turkey.—[We are indebted to a medical gentleman, at present residing in Constantinople, for the following details. They point to the existence of a state of matters, of which very imperfect accounts have as yet reached this country; and such as, undoubtedly, is at once the proof and the earnest of a new era in the history of civilization having begun in the East]

"Military hospitals, on a large scale, are either built or a-building in every quarter of the Turkish Empire. There are about one thousand European surgeons attached to the different regiments, two hundred of whom are Jews. The chief professor of the Medical College, Dr. Spitzer, is a Jew. He is also one of the physicians in ordinary to the Sultan. By him I was introduced to H. E. the Hakim Bashy Ismael Effendi, the chief physician of the Ottoman empire, who kindly permitted me to visit the different lecture-rooms in the Medical College. It is certainly in a very flourishing condition, considering that it has been in existence only eleven years. The pupils are brought, by order of the Sultan, from all departments of the empire, and are lodged, fed, clothed, and educated, at the expense of the government. When qualified as physicians and surgeons, they receive appointments in the army and navy, with salaries of £200 or £300, and upwards, according to rank, without distinction of Jew or Gentile. Until lately, however, there were no Jews in this college: not that the government excluded them, on the contrary, they were invited; but that people, who have been scattered amongst all nations, yet amalgamated with none, would not send their sons to this medical establishment, even although the most flattering prospects of education and worldly advancement were held out to them. But the government condescended to smooth all the difficulties which stood in the way of the improvement of this section of its subjects. Through its agents, it held interviews on the question of conscientious scruples with the chief Jewish Rabbis: and the result was, not only the guaranteeing liberty of conscience to the Jews who should enter the Medical School, but the assigning to them a distinct portion of the college, so that they might live separate from the Gentiles, the appointment of a superintendent of their own persuasion, to see that their religious duties and services should be strictly observed—also a shocket, or butcher, of their own; and, in short, every arrangement was made to prevent their being constrained to do any

thing contrary to their conscience. In the language of last year's report of the college authorities,—'Toutes les difficultés ont été aplanies, et le Gouvernement n'a reculé aucune sacrifice pour exercer aussi son influence civilisatrice sur cette partie des sujets de l'Empire.' The Sultan lately visited the college, and presided at the examination of the candidates for the medical degree. When the pupils are first introduced to the college, they are, for the most part, raw, ignorant, and uncivilized. They are at first taught Turkish, afterwards the Arabic and French languages; next geography, history, arithmetic, and other elementary branches of education, including natural history. They have already a very tolerable museum of natural objects, well preserved and well arranged. A small botanic garden is also attached to the college. After undergoing a thorough elementary education, the pupils enter their medical course, comprising lectures on anatomy, physiology, chemistry, materia medica, practice of physic, surgery, and midwifery. The only room I did not see was the dissecting-room; it was closed at the time for want of subjects, which it is difficult to procure in a country where so much prejudice against dissection exists, and even against touching a dead body. I was shown into the grand examination room, fitted up with a great throne of state for the Sultan, who presides at the yearly examination of the candidates for the medical degree. There are also a dispensary and hospital attached to the college. The hospital is divided into medical and surgical wards, and a special ward is set apart for diseases of the eye. Dr. Spitzer delivers clinical lectures in the hospital, which he kindly invited me to attend.—*Constantinople*, March, 1848.—*Monthly Journ. Med. Sci.*

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Medical Schools in Russia.—The medical schools of Russia are carried on in a grand and becoming manner, they are plentifully supplied in every respect. The studies must extend over five years, each year beginning in August and terminating in June. The whole of May is given up to examinations; all the courses last the full year, and every student is obliged to attend them, irrespectively of the peculiar branch of medical science he may wish to study. There are six *censures*, or examinations. If the candidate do not give satisfaction with the first three, he is put back for one year; but when he has creditably passed five, he obtains his doctor's degree. The sixth is only attempted by those who are looking for state appointments. The fourth and fifth years are especially dedicated to clinical instruction; after which the young men may settle in any part of the empire.—*London Lancet.*

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On the Production of severe Internal Injuries without External Marks of Violence. By Dr. Casper.—Dr. Casper has communicated in his 'Wochenschrift' the results of the judicial post-mortems he has had occasion to make, and draws attention more than once to the vast amount of injury that may be done to important internal organs, unaccompanied with any mark of the external violence that has produced it; and justly remarks that such cases should teach practitioners great caution in the delivery of opinions from mere external inspection. Hencke only observes that rupture of the spleen *may* occur without any external sugillation; but Dr. Casper has met with ruptures and fractures of various other parts, as the kidneys, liver, heart, lungs, the ribs, vertebræ, and sternum. One truly extraordinary case of this kind he gives in some detail. A dealer in glass was descending a hill with his heavily-laden cart, on a cold winter's night, and in alighting the better to guide the horse, was thrown against a tree by the road side. On the external examination of the body nothing was seen but some slight abrasion of the skin over the zygomatic arch and the arm. Nothing particular was discovered within the cranium; but on opening the spinal canal, a large quantity of dark, fluid blood flowed out, and the spinous process of the first dorsal vertebra was found entirely broken off, lying among the soft parts. The spinal muscles in their whole

course were much sugillated, but the medulla was entire. In the left side of the thorax there were about thirty ounces of a bloody fluid, and it was soon perceived that the *heart* was absent from its proper place, and it was found lying *loose* in the back part of the thoracic cavity, *entirely torn away from the large vessels*, the ends of these being plainly seen. The texture of the organ was firm, and its cavities contained dark coagula. The left lung at its middle fissure was almost entirely torn through. The right lobe of the liver was likewise ruptured.—*Brit. and For. Med. Chir. Rev., from Casper's Wochenschrift.*

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Question of Professional Secresy.—Dr. VIRIELLE, of Rochelle, was consulted by M. B. for a venereal affection, which, without knowing it, he communicated to his wife. She separately consulted the same practitioner. Some time after the lady being desirous of procuring a separation from her husband, summoned Dr. Virielle as a witness, to testify to the injury she had received at his hands. Dr. Virielle refused to take the oath to speak the truth, as he could not reveal that which his professional obligations entitled him to keep secret; and he did not believe that even the authorization which the plaintiff offered him, as regarded her own case alone, would allow him to do so. The court decided that while the Code forbade professional revelations on the part of a physician made with an intention of doing injury, it did not authorize a refusal when demanded by justice; for this would be to exempt him from obligations which are imposed on all other citizens. The refusal is especially unjustifiable when the consultant herself demanded the revelation, and did not seek for any in respect to her husband.

A fine of sixty francs was imposed; but the medical society of Rochelle have carried the case, by appeal, to the court of Poitiers, where it seems that in 1828, in a precisely analagous case, judgment was given in favor of the medical attendant.—*L'Union Médicale.*

[Notwithstanding the approval which the editors of the French Medical Periodicals bestow upon the conduct of the physician in this case, we believe it quite unjustifiable. Inviolable, indeed, should be professional secrets in all the relations of private life; and no punishment could be too severe for him who, for mischievous purposes, betrayed those of which necessity, misfortune, or accident put him in possession. But, when summoned to the tribunals of his country, the furtherance of the ends of justice becomes the physician's highest duty; and if the inviolability here claimed were accorded, and fully carried out, especially in criminal cases, it might lead, not unfrequently, to the utter frustration of these ends.—*Med. Chir. Rev.*]

OBITUARY.

Died lately at Orthes, in the South of France, Dr. DUFOUR, in the 104th year of his age. He preserved his faculties to the last.

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In London, on the 3d of December, in the 68th year of his age, SAMUEL COOPER, Esq., F. R. S., late Professor of Surgery in University College, and well known throughout the medical world by his numerous surgical writings.

TO READERS AND CORRESPONDENTS.

Justice to the editor and contributors of the Journal demands that he should state that a greater part of the pages of the last number passed through the press while he was laboring under a severe attack of typhus fever, thus preventing him from reading either the "*manuscript*" or "*proof sheets.*" This he hopes will be a sufficient apology for the errors and imperfections which that number contained.

The unusual length of the original department of this number has prevented several notices of books and introductory lectures intended for this from appearing until our next. In which, also, we hope to be able to complete the notice of the Transactions of the American Medical Association.

It affords us much pleasure to be able to announce to the readers of the Journal, that Prof. Pigné, late of Paris, now a resident of this country, has very politely acceded to our request to furnish a series of articles on several interesting points of pathology for its pages. These articles are written expressly for this journal—they have never before been published and are written in *French* for the only reason that their author is unacquainted with our language. Dr. Sayre has very kindly promised to furnish the translation as soon after the original is received as possible.

The Editor feels grateful to Dr. Clay, of Manchester, England, for the valuable parcel sent him, and will comply with his request as early as possible.

CORRECTION.—The reader is requested to insert the following "out" at page 35, second line from top, which, by some unaccountable accident occurred in Dr. Sayre's "Extracts" in the last number.

"Therefore finding no other cause to which I could attribute this derangement of her nervous system, I was compelled to believe it caused by anxiety on account of her deformity, and advised the removal of her extra toes and finger, to which she readily assented."

We acknowledge the reception of the following books:—

An Illustrated System of Human Anatomy, Special, General and Microscopic. By SAMUEL GEORGE MORTON, M. D., Penn. and Edinb., Member of the Medical Societies of Philadelphia, New-York, Boston, Edinburgh and Stockholm; Author of "Crania Americana," "Crania Ægyptiaca," etc. With three hundred and ninety-one engravings on

wood. "*Oculis subjecta fidelibus.*" Philadelphia: Grigg, Elliot & Co., 1849, 8vo. Royal, pp. 642. (From the publishers.)

Manual of Physiology. By WILLIAM STENHOUSE KIRKES, M. D., assisted by JAMES PAGET, Lecturer on General Anatomy and Physiology, at St. Bartholomew's Hospital, with one hundred and eighteen illustrations on wood. Philadelphia: Lea & Blanchard, 1849, 12mo., pp. 552. (From the publishers.)

An Introduction to Practical Chemistry, including Analysis. By JOHN E. BOWMAN, Demonstrator of Chemistry in King's College, London. Philadelphia: Lea & Blanchard, 1849, 12mo., pp. 303. (From the publishers.)

Encyclopædia Obstetrica; or, a Theoretical, Practical, Historical, Biographical, and Critical Dictionary of Obstetrics, including Diseases of Women and Children. Each term is given in its English, Greek, Latin, German, and French form and acceptation; and to each article is appended a copious bibliography; the whole work presenting a full and faithful view of Obstetrics, through all the phases of their development and progress, to the present period. Illustrated with numerous wood engravings. By CHARLES CLAY, M. D., Licen. Roy. Coll. Phy., London, M. R. C. S., Hon. Mem. Institut d'Afrique, Paris. Author of Peritoneal Section for the Extirpation of Diseased Ovariæ. Author of various Obstetric Papers, and Editor of the "British Record of Obstetric Medicine and Surgery, etc. etc." London: H. Renshaw, Manchester: William Erwin, 1848. Parts 1 and 2, pp. 32-32. (From the author.)

Introductory Lecture delivered to the Class of the Starling Medical College, November 1st, 1848. By FREDERICK MERRICK, A. M., M. D., Professor of Chemistry and Botany. Columbus, 1848, 8vo., pp. 16. (From the author.)

Researches, Critical and Experimental on the Capillary Circulation. By BENNET DOWLER, M. D., Corresponding Member of the Academy of Natural Sciences of Philadelphia, etc. (Reprinted from the New-Orleans Medical and Surgical Journal.) New-Orleans, 1849, pp. 34. (From the author.)

The Plea of Humanity in behalf of Medical Education; the Annual Address delivered before the New-York State Medical Society, and Members of the Legislature, at the Capitol, February 6th, 1849. By ALEXANDER H. STEVENS, M. D., President of the Society, of the American Medical Association, and of the College of Physicians and Surgeons of New-York, etc. etc. Published by the Society. Albany, 1849, 8vo., pp. 20. (From the author.)

On Etherization: A paper read before the Medical Society of Louisville, Dec. 18th, 1848, by LUNSFORD P. YANDELL, M. D., Professor of Chemistry and Pharmacy, in the University of Louisville. Published by the Society, Louisville, Ky., 1848. pp 36, (from the Society.)

Introductory Lecture to the course of Materia Medica, and Pharmacy, in the University of Pennsylvania. By GEORGE B. WOOD, M. D., Professor of Materia Medica and Pharmacy, and delivered Oct. 19th, 1848. Philadelphia, 1848, 8vo. pp. 23. (From the author.)

A Lecture, Introductory to a course on Obstetrics, and the diseases of Women and Children. Delivered November 5th, 1848. By GUNNING S. BEDFORD, M. D., Professor of Obstetrics and the Diseases of Women and Children, in the University of New-York.—New-York, 1848. 8vo. pp. 25. (From the Author.)

Introductory Lecture, delivered before the class of the Medical Department, of the St. Louis University. Session of 1848—1849. By JAMES BLAKE, M. D, Professor of Special, General and Surgical Anatomy. St Louis, 1848. 8vo. pp. 18. (From the Author.)

The Importance of Professional Studies. An introductiory Lecture delivered before the Students of Memphis Medical College, on the 13th of November, 1848. By GEORGE R. GRANT M. D. Professor of the Theory and Practice of Medicine. Memphis, 1848. 8vo. pp. 15. (From the Author.)

The following Journals have been received in Exchange:

The American Journal of Insanity, edited by the Officers of the New-York State Lunatic Asylum, for January. (Quarterly. Utica, N. Y.)

The American Journal of the Medical Sciences, edited by Isaac Hays, M. D., for January. (Quarterly. Philadelphia.)

The American Journal of Pharmacy, edited by Joseph Carson, M. D., and Wm. Proctor, M. D., Jr., for January, (Quarterly. Philadelphia.)

The New-Jersey Medical Reporter, and Transactions of the New-Jersey Medical Society, edited by Joseph Parrish, M. D., for January. (Quarterly. Burlington.)

The Medical Examiner and Record of Medical Science, edited by Francis G. Smith, M. D., and David H. Tucker, M. D., for January and February. (Monthly. Philadelphia.)

The New-Orleans Medical and Surgical Journal, devoted to Medicine and the Collateral Sciences, edited by J. Harrison, M. D., and A. Hester, M. D., for November. (Bi-Monthly. New-Orleans.)

Southern Medical and Surgical Journal, edited by Paul F. Eve, M. D., for January and February. (Monthly. Augusta.)

The Charleston Medical Journal and Review, edited by P. C. Gaillard, M. D., and H. W. De Saussure, M. D., for January. (Bi-Monthly. Charleston.)

St. Louis Medical and Surgical Journal, edited by M. L. Linton, M. D., John S. More, M. D., Wm. M. McPheeters, M. D., and Joseph N. McDowell, M. D., for January. (Bi-Monthly. St. Louis.)

The North-Western Medical and Surgical Journal, edited by W. B. Herrick, M. D., and J. Evans, M. D., January and February. (Bi-Monthly. Chicago and Indianapolis.)

The Western Journal of Medicine and Surgery, edited by D. Drake, M. D., L. P. Yandell, M. D., and F. W. Colescott, M. D. Not received since May last. (Monthly. Louisville.)

The Western Lancet and Hospital Reporter, edited by L. Lawson, M. D., and John P. Harrison, M. D., for January and February. (Monthly. Cincinnati.)

The Ohio Medical and Surgical Journal. Edited by John Butterfield, M. D.—(Not received since September last.) (Bi-Monthly. Columbus.)

Buffalo Medical Journal, and Monthly Review of Medical and Surgical Science, edited by Austin Flint, M. D., for January and February. (Monthly. Buffalo.)

The Boston Medical and Surgical Journal, edited by J. C. V. Smith, M. D. Numbers for January and February received. (Weekly. Boston.)

The Annalist, a Record of Practical Medicine in the City of New-York, edited by N. S. Davis, M. D., for January and February. (Semi-Monthly. New-York.)

The Medical News and Library, edited by ———, for January and February. (Monthly Philadelphia.)

The New-York Dental Recorder, edited by C. C. Allen, M. D., Dentist, for January. and February. (Monthly. New-York.)

The British-American Journal of Medicine and Physical Science, edited by Archibald Hall, M. D., L. R. C. S. E., for January and February. (Monthly. Montreal.)

Monthly Journal and Retrospect of Medical Science, edited by ———. Not received since May last. (Monthly. Edinburgh and London.)

London Medical Gazette or Journal of Practical Medicine, edited by ———, for October and November. (Weekly. London.)

The British Record of Obstetric Medicine, Surgery and Diseases of Women and Children, &c. &c., edited by Charles Clay, M. D. (Vol. 1st, for 1848.)

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All remittances of money and letters on the *business* of the Journal, should be addressed to the publisher.

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